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PICKWICK RESERVOIR PLAN

Appendix 3 Data Base

CONTENTS

Section A - Introduction

Section B - Mapped Data Descriptions

Section C - Community Profile Reports

CONTENTS

	<u>Page</u>
 SECTION A: INTRODUCTION TO THE DATA BASE APPENDIX	
A-1: Appendix Organization	1
A-2: Data Base Organization	2
A-3: Data Collection	7
A-4: Sample Data Maps	10
A-5: Use of the Data Base in Reservoir Plan Development and Implementation	14
 SECTION B: MAPPED DATA DESCRIPTIONS	
B-1: Introduction	21
B-2: Detailed Descriptions of Mapped Data Types	22
 <u>Physical and Biological Data</u>	
Air Quality	22
Fisheries and Molluscan Considerations	27
Floodplains	30
Potential Erosion Hazard	35
Threatened or Endangered Species and Unique Biological or Geological Features	37
Upland Wildlife	42
Water Quality, Water Sampling Stations, and Stream Segments	45
Waterfowl	53
Wetlands	56
Wetlands Wildlife	60
 <u>Social and Cultural Data</u>	
Architectural, Historic, and Archaeological Resources . .	64
Existing Land Use/Land Cover - Regional Overview	66
Existing Land Use/Land Cover - Reservoir Area	68
Existing Navigation Facilities	70
Existing/Planned Power Facilities	73
Recreation Development	76
Visual Quality	79
Water Intake and Discharge Facilities	83
 <u>Existing Plans, Political Jurisdictions, and Landrights Data</u>	
Adjacent Land Ownership	86
City Land Use Plans	87
County Land Use Plans	89
TVA Landrights and Existing Licensed/Managed Areas . . .	91

CONTENTS

(Continued)

Page

Land Use Capability Data

Agricultural Capability	93
Environmental/Energy Education Area Potential	95
Forest Industry Capability	98
Forest Management Capability	101
Potential Energy and Industrial Areas	104
Potential Industrial/Navigation Sites	106
Recreation and Natural Areas Capability	110
Upland Wildlife Development Capability	113
Waterfowl Development Capability	118
Wetlands Wildlife Capability	121

SECTION C: COMMUNITY PROFILE REPORTS

C-1: Introduction	125
C-2: Community Profile Reports	126
Hardin County, Tennessee, Community Profile Highlight Summary	126
Tishomingo County, Mississippi, Community Profile Highlight Summary	128
Lauderdale County, Alabama, Community Profile Highlight Summary	130
Colbert County, Alabama, Community Profile Highlight Summary	132

FIGURES

1. Regional Overview	3
2. Reservoir Area	5
3. Regional Overview Data: Air Quality - Sources of Industrial Air Pollution	11
4. Reservoir Area Data: Wetlands	15

TABLES

1. Data List	8
2. 100- and 500-Year Flood Elevations	31
3. Structure Profile Elevations	33
4. Maximum Probable Flood Profile Elevations	34
5. Water Sampling Locations in the Pickwick Reservoir Area	46
6. Classified Stream Segments in the Pickwick Reservoir Area	49

SECTION A
INTRODUCTION

SECTION A: INTRODUCTION TO THE DATA BASE APPENDIX

A-1: APPENDIX ORGANIZATION

The purpose of the Data Base appendix is to present a detailed description of the nature and extent of the data base used to develop the Pickwick Reservoir Plan. The data base contains both mapped and textual information that defines the reservoir setting, operational characteristics, and use demands; land use and environmental conditions, physical characteristics; and capability of the land and water for various uses. The appendix is divided into three sections: Section A: Introduction to the Data Base Appendix; Section B: Mapped Data Descriptions; and Section C: Community Profile Reports.

Section A provides an overview of how the data base was developed and used. It includes: (1) Appendix Organization, (2) Data Base Organization, (3) Data Collection, (4) Sample Data Maps, and (5) Use of the Data Base in Reservoir Plan Development and Implementation.

Section B describes the types and detailed categories of mapped data used in the project. The following information is provided for each data type: (1) Data Group, (2) Data Type, (3) Map Scale, (4) Data Source, (5) Responsible Organization, (6) General Description, (7) Data Categories, and (8) Use in Reservoir Plan Development.

Section C contains descriptive information concerning population, employment, income, trade, and service characteristics of the counties adjacent to Pickwick Reservoir.

A-2: DATA BASE ORGANIZATION

An extensive data base was compiled for the Pickwick Reservoir Planning Project covering two data collection areas: (1) Regional Overview and (2) Reservoir Area. Regional Overview data were gathered from the four-county area adjacent to Pickwick Reservoir, including Hardin County, Tennessee; Tishomingo County, Mississippi; and Colbert and Lauderdale Counties, Alabama (figure 1). Reservoir Area data were gathered from an area that included Pickwick Reservoir, TVA fee land and landrights, and an approximate 1-mile "zone of influence" (figure 2). The "zone of influence" was defined as the area that most directly affected or that was most directly affected by TVA land management activities and land use policies.

The data base consisted of (1) Community Profile Reports and (2) mapped data. The Community Profile Reports described the socioeconomic characteristics of the Regional Overview area, including estimated and projected population; race, age, and sex characteristics; migration characteristics; employment characteristics; community patterns; personal income; per capita income; retail trade and selected services; and distribution of retail sales. Mapped data were displayed on single-panel base maps at a scale of 1:150,000 (1 inch = 12,500 feet) for the Regional Overview portion of the data base and on five-panel base maps at a scale of 1:24,000 (1 inch = 2,000 feet) for the Reservoir Area portion (figure 3).

Two types of mapped data were collected: (1) descriptive and (2) interpretive data. Descriptive data identified the nature and extent of existing landrights and natural and manmade conditions in the project area. Specific data types were placed under one of the following overall data groups: (1) Physical and Biological Data; (2) Social and Cultural

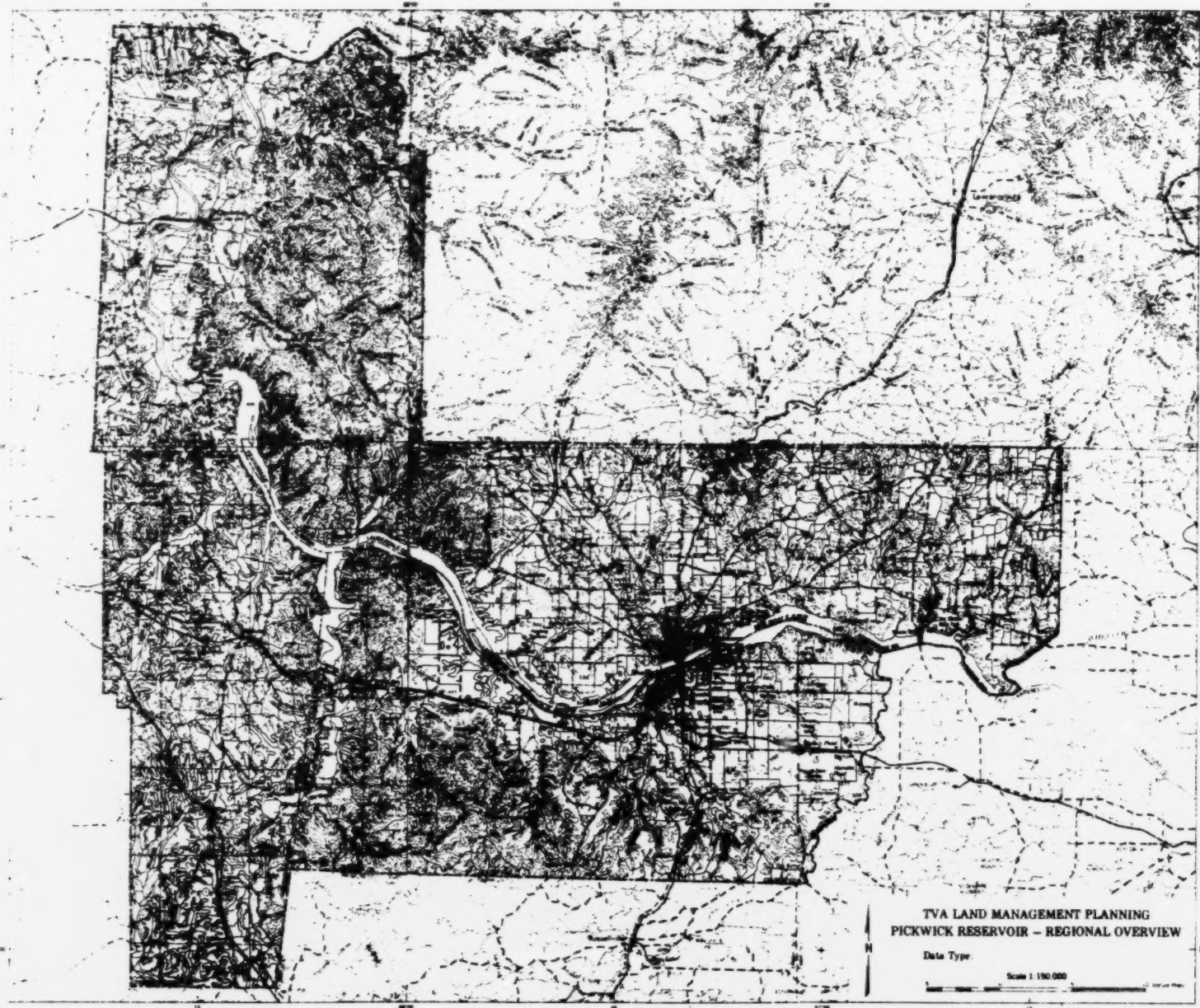


Figure 1 - Regional overview

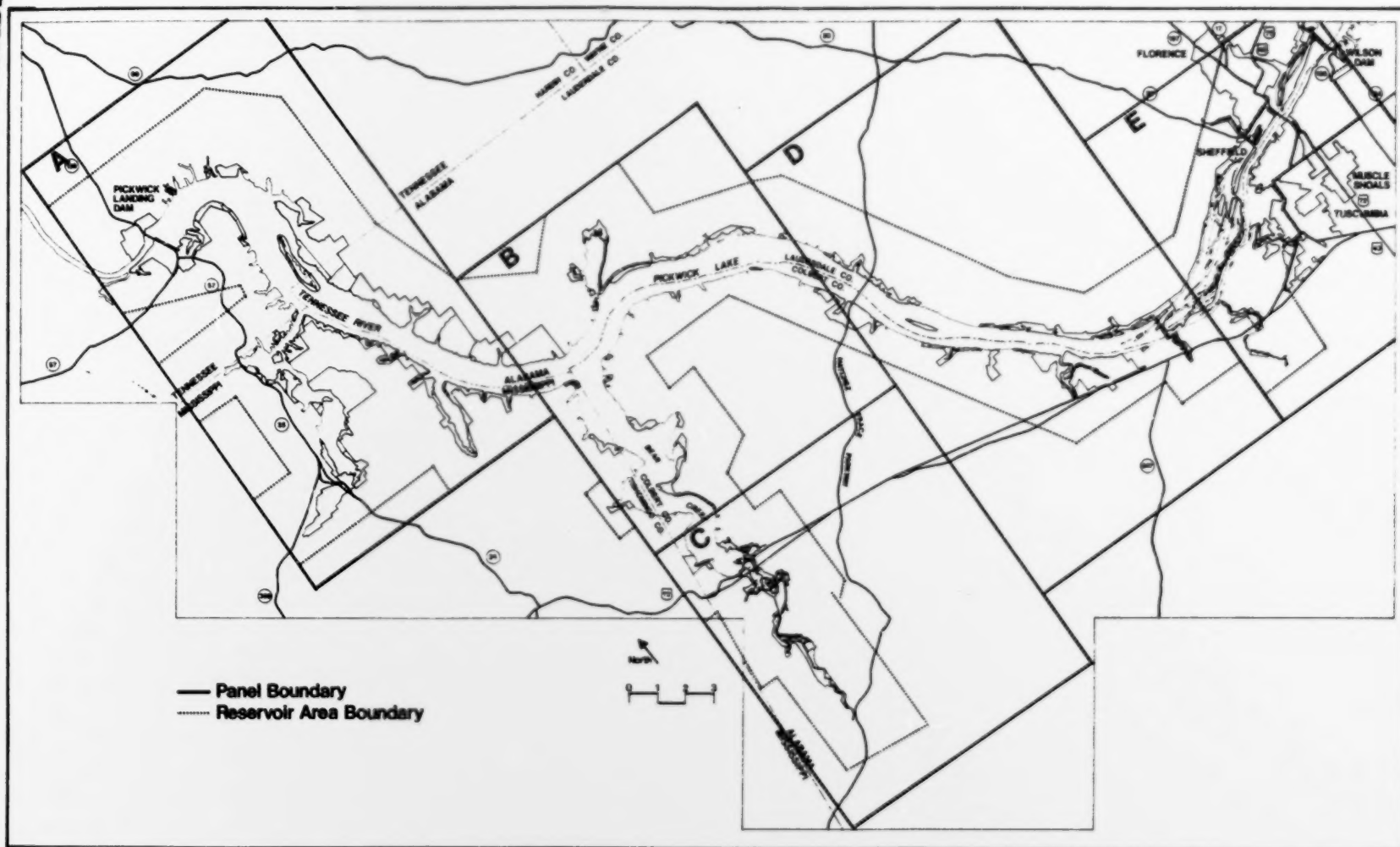


Figure 2. Reservoir Area - showing data collection boundary with dashed black line and panel boundaries with a solid black line

Data; or (3) Existing Plans, Political Jurisdictions, and Landrights Data. Interpretive data that assessed the relative capability of the land to support various uses were derived by analyzing the combination of selected descriptive data. Specific data types were placed under the overall data group entitled Land Use Capability Data. A list of specific data groups, data types, and map scales collected for the Pickwick Reservoir Planning Project is presented in table 1. A detailed description of each data type is presented in Section B: Mapped Data Descriptions.

A-3: DATA COLLECTION

Data collection guidelines, mapping techniques, and formats were developed by the Planning Team. Sixteen organizations within TVA's Office of Natural Resources, Office of Agricultural and Chemical Development, and Office of Economic and Community Development were responsible for preparing specific data types.

In an effort to reduce costs, data were compiled, where possible, from existing sources rather than by undertaking extensive field investigations. In some cases suitable data did not exist and a specific data collection effort was conducted. For example, current land use and land cover data were not available. Collection of these data included acquisition of new aerial photographs, manual photo interpretation, and field verification. In other cases, such as air quality, existing data that had been collected over the years from air sampling stations had to be analyzed and interpreted in specific ways to meet the goals and needs of the Pickwick Reservoir Planning Project.

Mapped data at both the 1:150,000 and 1:24,000 scales were recorded in final form on mylar overlays. The mylar overlays were then used to make color acetate overlays, which facilitated data analysis and use of the information in plan development.

Table 1. Data List.

<u>Data Group</u>	<u>Data Type</u>	<u>Map Scale</u>	
		<u>1:24,000</u>	<u>1:150,000</u>
<u>Physical and Biological Data</u>	Air Quality	X	X
	Fisheries and Molluscan Considerations	X	
	Floodplains	X	
	Potential Erosion Hazard	X	
	Threatened or Endangered Species and Unique Biological or Geological Features	X	
	Upland Wildlife	X	
	Water Quality, Water Sampling Stations, and Stream Segments	X	
	Waterfowl	X	
	Wetlands	X	
	Wetlands Wildlife	X	
<u>Social and Cultural Data</u>	Architectural, Historic, and Archaeological Resources	X	
	Existing Land Use/Land Cover	X	X
	Existing Navigation Facilities	X	
	Existing/Planned Power Facilities	X	
	Recreation Development	X	
	Visual Quality	X	
	Water Intake and Discharge Facilities	X	
<u>Existing Plans, Political Jurisdictions, and Land-rights Data</u>	Adjacent Land Ownership	X	
	City Plans	X	
	County Plans		X
	TVA Landrights and Existing Licensed/Managed Areas	X	
<u>Land Use Capability Data</u>	Agricultural Capability	X	X
	Environmental/Energy		
	Education Area Potential	X	
	Forest Industry Capability	X	

Table 1. (Continued)

<u>Data Group</u>	<u>Data Type</u>	<u>Map Scale</u>	
		<u>1:24,000</u>	<u>1:150,000</u>
	Forest Management Capability	X	
	Potential Energy and Industrial Areas	X	
	Potential Industrial/Navigation Sites	X	X
	Recreation and Natural Areas Capability	X	
	Upland Wildlife Development Capability	X	
	Waterfowl Development Capability	X	
	Wetlands Wildlife Capability	X	

A-4: SAMPLE DATA MAPS

Sample data maps at both the Regional Overview (1:150,000) and Reservoir Area (1:24,000) scales are provided in this section. A complete set of the data maps used in this project was not included in the Data Base appendix for the following reasons: (1) high printing cost; (2) limited utility of maps reduced to 7½ x 10 inches report size (the original size of panel A, for example, is 25 x 48 inches); and (3) sensitivity of certain data types such as Threatened or Endangered Species and Unique Biological or Geological Features; Architectural, Historic, and Archaeological Resources; and Fisheries and Molluscan Considerations. With the exception of the data described in number 3 above, a complete set of blueline prints of the data base at original mapped scale is available for inspection at the following TVA office locations: (1) Division of Land and Forest Resources, Forestry Building, Norris, Tennessee; (2) Division of Land and Forest Resources, Southern District, 170 Office Services Warehouse, Muscle Shoals, Alabama; (3) Alabama Administrative District, 529 First Federal Building, Muscle Shoals, Alabama; and (4) Mississippi Administrative District, 1014 North Closter Street, Tupelo, Mississippi.

Major Industrial Point Sources of Air Pollution, a portion of the Air Quality data, was selected as the Regional Overview mapped data example (figure 3). Industrial point sources were determined by using emission inventory information obtained from each respective State air pollution control agency. Emissions from phosphate fertilizer plants could include fluoride compounds, ammonia, and particulates. Other emissions from sources listed in the legend include sulfur oxides, carbon monoxide, nitrogen oxides, hydrocarbons, and particulates. The data map also shows

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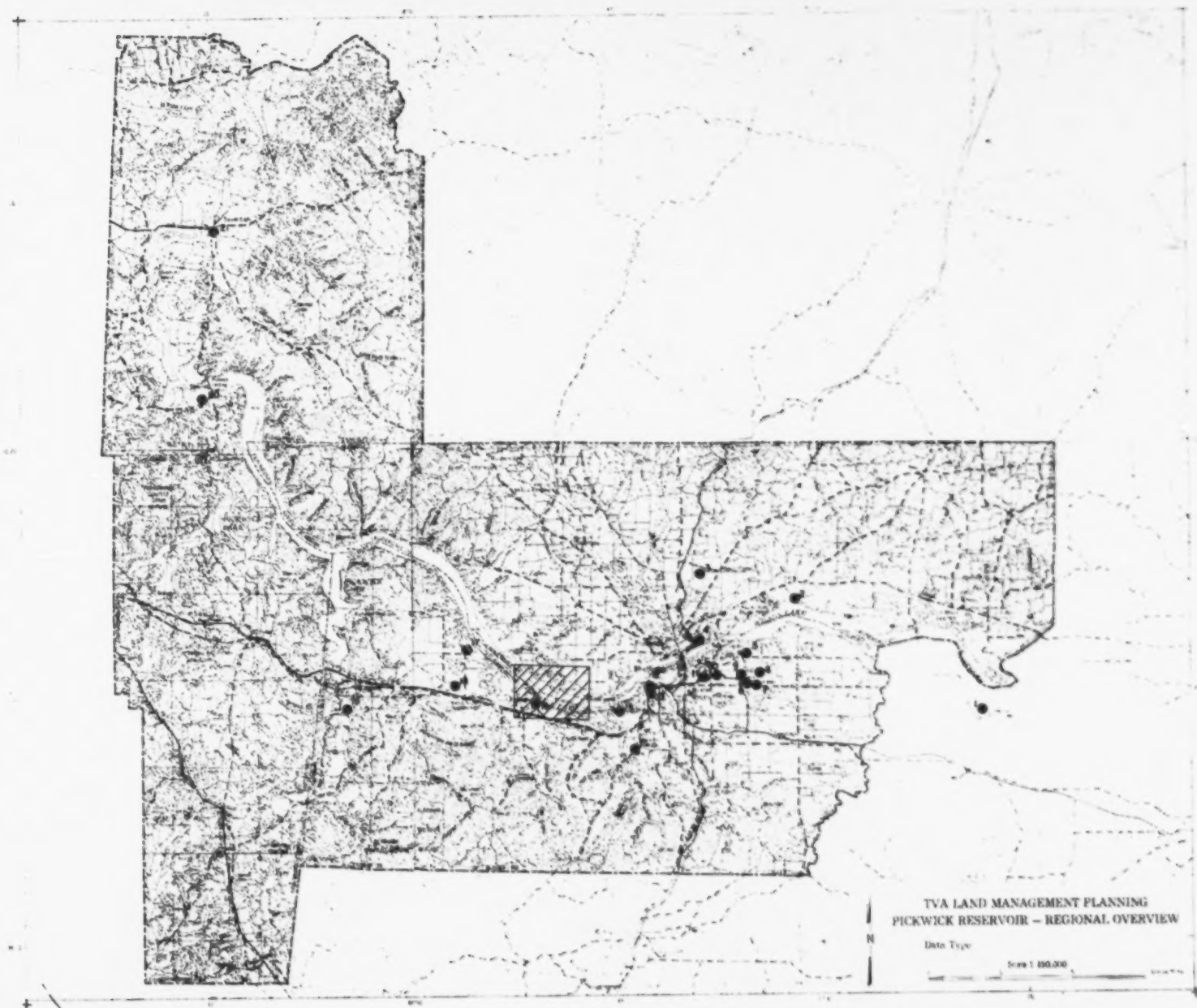


Figure 3. Regional Overview Data : Air Quality - Sources of Industrial Air Pollution

LEGEND:

1. Champion Papers
2. National Floor Products
3. National Floor Products
4. Martin Industries
5. Union Carbide
6. Reynolds Metals
7. Reynolds Metals
8. Reynolds Metals
9. Ford Motor
10. Diamond Shamrock
11. TVA National Fertilizer
Development Center

12. Super Rock Block Company
13. King Stove and Range
14. Vulcan Materials
15. Malone Charcoal
16. TVA Colbert Steam Plant
17. U.S.S. Agrichemicals
18. Southern Stone
19. Southern Stone
20. Tennessee River Pulp and Paper
21. Temple - Chattanooga



Sulfur Dioxide Nonattainment Area

a sulphur dioxide nonattainment area caused by emissions from TVA's Colbert Steam Plant. This area is projected to achieve attainment by the end of 1982.

A portion of the Wetlands data was selected as the Reservoir Area mapped data example (figure 4). Wetlands were delineated using August 1980 color aerial photography and classified in accordance with the standards put forth in Classification of Wetlands and Deepwater Habitats of the United States, U.S. Fish and Wildlife Service, Office of Biological Services, December 1979.

A-5: USE OF THE DATA BASE IN RESERVOIR PLAN DEVELOPMENT AND IMPLEMENTATION

The data base was extensively used to develop the Pickwick Reservoir Plan, and it will continue to be an important resource in the future to aid implementation of the plan, development of detailed management plans, and environmental assessment of proposed uses of TVA reservoir land.

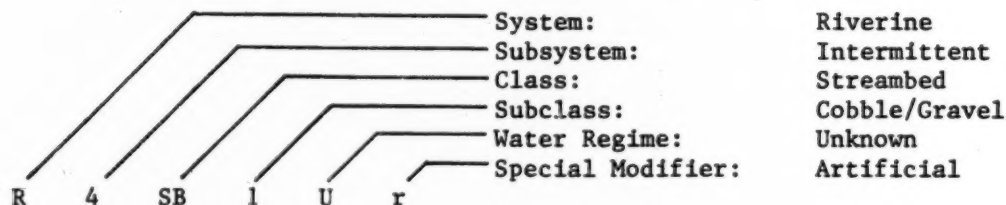
The Regional Overview data provided (1) an overview of the region's socioeconomic trends, land use and environmental issues, and physiographic characteristics; (2) a better understanding of the relationship of the reservoir to surrounding lands; and (3) in combination with the results of public participation sessions, it provided a basis for developing specific reservoir land management goals and objectives. The Reservoir Area data (1) provided a detailed description of the physical, biological, social, cultural, and landrights characteristics of the reservoir area; (2) provided an evaluation of the capability of the land for various uses; (3) formed the basis for developing specific land use allocations and environmental quality controls for the Pickwick Reservoir Plan; and (4) will

//

Figure 4. Reservoir Area Data : Wetlands

LEGEND:

Example Wetland Designation



(System)	(Subsystem)		
P Palustrine			4 Broad-Leaved Nonpersistent
R Riverine	2 Lower Perennial		5 Narrow-Leaved Persistent
	3 Upper Perennial		6 Broad-Leaved Persistent
	4 Intermittent		
	5 Unknown Perennial	FL Flat	
L Lacustrine	1 Limnetic		1 Cobble/Gravel
	2 Littoral		2 Sand
			3 Mud
			4 Organic
			5 Vegetated Pioneer
			6 Vegetated Nonpioneer
(Class)	(Subclass)		
AB Aquatic Bed	1 Submergent Algal	FO Forested	1 Broad-Leaved Deciduous
	2 Submergent Vascular		2 Needle-Leaved Deciduous
	3 Submergent Moss		3 Broad-Leaved Evergreen
	4 Floating-Leaved		4 Needle-Leaved Evergreen
	5 Floating		5 Dead
	6 Unknown Submergent		6 Deciduous
	7 Unknown Surface		7 Evergreen
BB Beach/Bar	1 Cobble/Gravel		
	2 Sand		
EM Emergent	1 Persistent		
	2 Nonpersistent		
	3 Narrow-Leaved Nonpersistent		

(Continued on next page)

ML Moss/Lichen

- 1 Moss
- 2 Lichen

- 3 Mud
- 4 Organic

OW Open Water/
Unknown Bottom

(Water Regime Modifiers)

RB Rock Bottom

- 1 Bedrock
- 2 Boulder

RS Rocky Shore

- 1 Bedrock
- 2 Boulder
- 3 Vegetated
Nonpioneer

SB Streambed

- 1 Cobble/Gravel
- 2 Sand
- 3 Mud
- 4 Organic

SS Scrub/Shrub

- 1 Broad-Leaved
Deciduous
- 2 Needle-Leaved
Deciduous
- 3 Broad-Leaved
Evergreen
- 4 Needle-Leaved
Evergreen
- 5 Dead
- 6 Deciduous
- 7 Evergreen

UB Unconsolidated
Bottom

- 1 Cobble/Gravel
- 2 Sand

- A Temporary
- B Saturated
- C Seasonal
- D Seasonal/Well-Drained
- E Seasonal/Saturated
- F Semipermanent
- G Intermittently Exposed
- H Permanent
- J Intermittently Flooded
- Z Intermittently Exposed/Permanent (G,H above)
- W Intermittently Flooded/Temporary (A,J above)
- Y Saturated Semipermanent/All Seasonals (B,C,D,E,
F above)
- U Unknown
- K Artificial

(Other Modifiers)

- b Beaver
- d Partially Drained/Ditched
- f Farmed
- h Diked/Impounded (Dam)
- r Artificial
- s Spoil
- x Excavated

be used to aid implementation of the reservoir plan, including development of detailed land management plans for specific tracts, 26a reviews, and assessment of public and private requests for the use, transfer, or sale of TVA land.

The data base was developed in direct response to the needs identified in the project goals and mandates (see Pickwick Reservoir Plan: Goals, Mandates, and Management Strategies). The specific goals and mandates that each data type addresses are included in Section B: Mapped Data Descriptions, under item 8, Use in Reservoir Plan Development.

SECTION B

MAPPED DATA DESCRIPTIONS

SECTION B: MAPPED DATA DESCRIPTIONS

B-1: INTRODUCTION

This section describes the mapped data used in the Pickwick Reservoir Planning Project. Data groups are presented in the following order: (1) Physical and Biological Data; (2) Social and Cultural Data; (3) Existing Plans, Political Jurisdictions, and Landrights Data; and (4) Land Use Capability Data. For each data type, information is provided concerning (1) Data Group; (2) Data Type; (3) Map Scale; (4) Data Source--primary acquisition source; (5) Responsible Organization--TVA organization with program mandate and lead responsibility in data collection, quality control, and technical expertise in interpreting the meaning or significance of the data; (6) General Description--background, general definitions, limitations, caveats, etc.; (7) Data Categories--detailed data classifications and definitions; and (8) Use in Reservoir Plan Development--relationship of the data to specific project goals and mandates.

B-2: DETAILED DESCRIPTIONS OF MAPPED DATA TYPES

Physical and Biological Data

DATA TYPE: Air Quality

MAP SCALE: 1:150,000

DATA SOURCE: TVA Air Monitoring Data, State Air Pollution Control
Agencies Data

RESPONSIBLE ORGANIZATION: Office of Natural Resources
Air Resources Program

GENERAL DESCRIPTION:

The Clean Air Act Amendments of 1970 established national clean air goals for achieving the National Ambient Air Quality Standards (NAAQS) in areas not attaining these standards by 1975 while maintaining and protecting air quality in clean air areas. The State Implementation Plans developed in the last part of 1971 and the first half of 1972 outlined the measures to be used. These early attempts, although resulting in improvements in ambient air quality, did not meet the attainment goal. The 1977 Amendments of the Clean Air Act reaffirmed these goals and established provisions for area designations that would define the air resources available for new economic growth. The areas that do not attain the NAAQS were designated nonattainment. The 1977 Amendments required the States to resubmit plans for attaining ambient standards by the end of 1982. The deadline was extended to the end of 1987 for areas particularly complicated by ozone and carbon monoxide problems. As evidenced by the early attempts to attain the NAAQS, a plan does not ensure that the standards will be maintained once attained.

The 1977 Amendments recognized the importance of air as a resource and emphasized the need to provide a mechanism for management of air resources. This mechanism was provided by the Emission Offset Policy for nonattainment areas and the Prevention of Significant Deterioration (PSD) for attainment areas. The PSD provisions provided for all areas attaining the standards to be classified in one of three categories. Class I areas require maximum protection of the air resources and were used to designate "national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or

regional natural recreational scenic historic value." Class II areas allow moderate growth, and Class III areas allow maximum growth. To date only Class I and Class II designations have been made. Although PSD recognized the need for air resource management and was an attempt both to define the air resources consistent with the goals of the Clean Air Act and to provide a mechanism for allocation of the available air resources, the PSD increment "first-come, first-served approach" has encountered problems in application in many areas of the country, including the Tennessee Valley region. Alternative procedures are needed, and likely will evolve out of the Clean Air Act review by Congress in 1981, to give the States some flexibility in land use management decisions.

This emphasizes the need to allocate air resources consistent with the intended land use to minimize conflicts with other resources and needs of the area. There are two air resource area designations that apply to the TVA lands in the Pickwick Reservoir area. The Colbert Steam Plant Reservation and the reservoir property immediately across the river are designated nonattainment for sulfur dioxide. This area is projected to achieve attainment by the end of 1982. All other TVA lands as well as the remainder of the counties in the planning area are designated Class II attainment.

The baseline air quality for the Pickwick area is defined by the calendar year 1977 data base. In order to define the air resources during this period and determine the potential for future economic growth of the region, the data base must define the meteorology and topography of the area, ambient air quality in 1977, the sources of air emissions, and the potential for economic growth consistent with the available air increment. All of these data except meteorology and topography are presented in mapped form.

DATA CATEGORIES:

Map Symbol



Major Sources of Industrial Air Pollution

1. Champion Papers
2. National Floor Products
3. National Floor Products

Map Symbol

4. Martin Industries
5. Union Carbide
6. Reynolds Metals
7. Reynolds Metals
8. Reynolds Metals
9. Ford Motor Co.
10. Diamond Shamrock
11. TVA National Fertilizer Development Center
12. Super Rock Block Company
13. King Stove and Range
14. Vulcan Materials
15. Malone Charcoal
16. TVA Colbert Steam Plant
17. U.S.S. Agrichemicals
18. Southern Stone
19. Southern Stone
20. Tennessee River Pulp and Paper
21. Temple-Chattanooga

The industrial point sources were determined by using emission inventory information obtained from each respective State air pollution control agency. Emissions from phosphate fertilizer plants could include fluoride compounds, ammonia, and particulates. Other emissions from sources listed would include sulfur oxides, carbon monoxide, nitrogen oxides, hydrocarbons, and particulates. In 1977, major industrial sources emitted over 3,000 tons of particulate, 6,000 tons of SO_2 , and 8,000 tons of carbon monoxide in Hardin County. In Colbert County, Alabama, the major sources emitted over 10,000 tons of particulate, nitrogen oxides, and SO_2 .



Sulphur Dioxide Nonattainment Area



Future Major Industrial Growth Areas

An air resources analysis has been performed to determine general areas that have sufficient air increment to facilitate

major industrial development. The two areas in Mississippi have the best air resources for future development. However, these areas may not experience any significant new growth until the Tennessee-Tombigbee Waterway is completed in the later 1980's. The site in Hardin County, Tennessee, is the third best site, and the site in Colbert County is the fourth best from an air resources perspective. Any source locating at the Colbert County site must be able to demonstrate not only attainment of the NAAQS but no significant impact upon the attainment of the SO₂ standard in the designated nonattainment area.

Major Transportation Corridors



Water Transport



Rail Transport



Highway Transport



Air Transport

These factors will affect future growth of the area as well as determine the potential for future ambient air quality problems and the ability of the region to accommodate economic development consistent with the air quality goals and objectives.

1977 Ambient Air Monitoring Stations



TSP - Total Suspended Particulates



SO₂ - Sulfur Dioxide



Ozone



NO_x - Nitrogen Oxide



MET

All of the monitoring sites shown with the exception of four for total suspended particulates (TSP) and one for SO₂ are TVA-operated. The Alabama Air Pollution Control Commission operated two TSP and one SO₂ monitor in Lauderdale and Colbert Counties. Tennessee River Pulp and Paper operated two TSP monitors in Hardin County. The site near Saltillo, Tennessee, is a TVA PSD monitoring site and was not in operation in 1977. It does establish a PSD monitoring baseline for Hardin County, Tennessee. The State air pollution control agencies did not operate monitoring sites in their respective counties of the planning area in 1977.

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.
- (6) Emphasize factors in reservoir land planning that have a positive influence on quality of life.
- (6b) Emphasize the protection of environmental quality and amenities (air, water, noise, and aesthetics) in the implementation of TVA programs on TVA lands and encourage these considerations in the development of adjoining lands.

Mandates

- (1) Clean Air Act Amendments of 1977
- (2) National Environmental Policy Act of 1969 (NEPA)
- (3) Executive Order 12088: Federal Compliance with Pollution Control Standards

DATA TYPE: Fisheries and Molluscan Considerations

MAP SCALE: 1:24,000

DATA SOURCE: TVA Program Data

RESPONSIBLE ORGANIZATION: Office of Natural Resources

Division of Water Resources

Fisheries and Aquatic Ecology Branch

GENERAL DESCRIPTION:

Fisheries and molluscan data concern the location of fishing facilities, mussels and other invertebrates, unique plants and important wetlands, and important fisheries and fish habitats. Unique plants are not necessarily on official threatened or endangered species lists.

DATA CATEGORIES:

Map Symbol

Fishing Facilities

A-1 Fish attractors.

A-2 Fishing piers.

Mussels and Other Invertebrates

B-1 Sanctuaries or restricted habitats.

B-2 Commercial mussel harvesting area.

Unique Plants and Important Wetlands

C-1-# State record trees.

C-1-1 September elm (Ulmus serotina).

C-1-2 Devil's walking stick (Aralia spinosa).

C-1-3 Yellow wood (Cladrastis lutea).

C-1-4 Ironwood (Carpinus caroliniana).

C-1-6 Black walnut (Juglans nigra).

C-1-7 Cherrybark oak (Quercus falcata var. pagodaefolia).

C-1-8 Cottonwood (Populus deltoides).

C-2-# Unique flora.

C-2-9 Population of white trout lily (Erythronium albidum).

A rare plant in southeastern North America.

C-2-10 Easternmost native population of baldcypress (Taxodium distichum) along the Tennessee River.

Map Symbol

- C-2-11 Steep bluffs along Cypress Creek are colonized by unique herbaceous flora.
- C-2-12 Coffee Slough and Seven Mile Island area contain diverse aquatic and wetland plant communities ranging from duckweeks to large baldcypress. Largest area with these community types in the upper Pickwick Reservoir area.
- C-2-15 Tusculmbia Springs is a large "spring" ecosystem with unique flora and fauna.
- C-2-16 Location of Eriogonum longifolium var. harperi, being reviewed for endangered plant status.
- C-2-18 Mudflat or wetland plant communities along Horseshoe Bend of Cane Creek.
- C-2-21 Plantations of baldcypress and white cedar (Chamaecyparis thyoides) about 40 years old. Only white cedar found in north Alabama.
- C-2-25 Scattered locations of snow wreath (Neviusia alabamensis A. Gray) from Eastport to Yellow Creek along bluffs of Tennessee River. This species is found in only a few locations in Tennessee, Alabama, and Arkansas.
- C-2-27 Two plantations of baldcypress (Taxodium distichum) about 40 years old.
- C-3-# Unique Wetlands.
- C-3-13 Significant wetland plant community located on private land. Size is increasing.
- C-3-14 Woodland Spring is a large spring along Sinking Creek.
- C-3-19 Extensive wetland habitat known locally as Annie-Winnie Pond under private ownership. Location of water purslane (Didiplis diandra), a species rarely found in the East. Also a historical record for featherfoil (Hottonia inflata).
- C-3-20 Mississippi Pond and Williams Pond--natural ponds and wetland areas in private ownership.
- C-3-22 Extensive wetland habitat in area above U.S. Highway 72, including mudflat plant communities.
- C-3-23 Extensive wetland habitat in upper Second Creek embayment.
- C-3-24 Extensive wetland habitat in upper Indian Creek embayment.

Map Symbol

C-3-26 Extensive wetland habitat with diverse wetland plant communities.

Important fisheries and fish habitats

D-1 Trophy fishing for smallmouth.

D-2 Fish spawning and nursery habitat.

D-3 Intensive sport fishing area.

D-4 Area of intensive use by commercial fishermen.

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.
- (1g) Protect and enhance the important fisheries and wildlife resource habitats in and on TVA waters and lands.
- (2) Provide a diversity of quality recreation opportunities on the reservoir and adjoining TVA land.
- (2e) Maintain and improve the quality of wildlife and fishing recreational opportunities.
- (6) Emphasize factors in reservoir land planning that have a positive influence on quality of life.
- (6d) Recognize the importance of a diverse economic base in supplying job opportunities to provide a quality lifestyle (e.g., commercial fishing).

Mandates

- (1) National Environmental Policy Act of 1969 (NEPA)
- (2) Executive Order 11990: Protection of Wetlands

DATA TYPE: Floodplains
MAP SCALE: 1:24,000
DATA SOURCE: TVA Program Data
RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Water Resources
Flood Hazard Analysis Branch

GENERAL DESCRIPTION:

The data maps have only the maximum probable flood elevations outlined on them. Due to the limitations of map scale and contour interval, it was not possible to outline the 100-year and structure profile elevations. However, tabulations of the 100- and 500-year structure profile and maximum probable flood elevations are provided on the following pages in tables 2-4.

DATA CATEGORIES:

Map Symbol

—— Maximum probable flood

USE IN RESERVOIR PLAN DEVELOPMENT:

Goal Addressed

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.

Mandates

- (1) Tennessee Valley Authority Act of 1933, as Amended
- (2) National Environmental Policy Act of 1969 (NEPA)
- (3) Executive Order 11988: Floodplain Management

Table 2. 100- and 500-Year Flood Elevations.

TENNESSEE RIVER
PICKWICK RESERVOIR

Mile	500-Year Flood		100-Year Flood	
	Q	ELEV	Q	ELEV
206.700	572300.	420.9	489700.	419.7
208.160	572124.	420.9	489559.	419.7
209.150	572005.	421.0	489464.	419.8
210.200	571878.	421.1	489363.	419.9
211.220	571755.	421.3	489264.	420.0
213.230	571755.	421.3	489264.	420.0
214.230	571393.	421.3	488974.	420.1
215.170	566468.	421.4	484974.	420.1
215.480	566411.	421.4	484926.	420.1
217.240	566084.	421.5	484654.	420.2
217.680	566003.	421.5	484586.	420.2
218.300	565888.	421.5	484490.	420.2
220.440	565491.	421.8	484159.	420.4
222.440	565119.	421.9	483849.	420.5
224.440	564748.	422.0	483540.	420.6
226.700	541624.	422.1	464490.	420.7
227.800	540835.	422.3	463838.	420.8
229.770	540094.	422.4	463227.	421.0
230.850	539688.	422.6	462892.	421.0
231.900	539293.	422.7	462566.	421.2
233.750	538598.	422.9	461991.	421.3
235.880	537797.	423.0	461332.	421.5
236.580*	537534.	423.1	461115.	421.6
236.580**	537534.	423.2	461115.	421.6
237.840	537061.	423.5	460724.	421.8
239.400	536474.	423.8	460240.	422.1
241.880	535542.	424.3	459470.	422.6
243.850	534801.	424.9	458859.	423.1
244.160	534685.	424.9	458763.	423.1
245.920	534023.	425.8	458217.	423.9
247.870	533290.	426.5	457612.	424.5
249.600	532640.	427.1	457076.	425.1
250.620	532256.	427.4	456759.	425.3
251.720	531843.	427.8	456418.	425.8
252.810	529100.	428.2	454200.	426.1
253.800	529100.	428.8	454200.	426.8
255.010	524000.	429.9	450000.	427.8
255.770	524000.	431.0	450000.	428.8
256.350*	524000.	431.7	450000.	429.5
256.350**	524000.	431.9	450000.	429.6

Table 2. (Continued)

500-Year Flood			100-Year Flood	
Mile	Q	ELEV	Q	ELEV
256.470*	524000.	431.9	450000.	429.6
256.470**	524000.	432.1	450000.	429.8
257.200	523407.	432.7	449593.	430.3
258.060	522388.	435.2	448892.	432.7
258.800	521511.	436.4	448288.	433.9
259.400	520800.	437.5	447800.	435.0

*Downstream at bridges.

**Upstream at bridges.

Table 3. Structure Profile Elevations.

PICKWICK RESERVOIR

<u>Tennessee River Miles</u>		<u>Elevation</u>
<u>From</u>	<u>To</u>	<u>Feet</u>
Pickwick Dam	226.7	423.0
226.7	242.0	423.0
242.0	244.0	424.0
244.0	245.0	425.0
245.0	247.0	426.0
247.0	248.0	427.0
248.0	250.0	428.0
250.0	251.0	429.0
251.0	253.0	430.0
253.0	254.0	431.0
254.0	255.0	432.0
255.0	257.0	433.0
257.0	258.0	434.0
258.0	Wilson Dam	435.0

Table 4. Maximum Probable Flood Profile Elevations.

PICKWICK RESERVOIR

Tennessee River Miles		Elevation
<u>From</u>	<u>To</u>	<u>Feet</u>
206.7	210.0	424.0
210.0	216.0	425.0
216.0	224.0	426.0
224.0	232.0	427.0
232.0	238.0	428.0
238.0	241.0	429.0
241.0	243.0	430.0
243.0	245.0	431.0
245.0	246.0	432.0
246.0	248.0	433.0
248.0	249.0	434.0
249.0	251.0	435.0
251.0	252.0	436.0
252.0	254.0	437.0
254.0	255.0	438.0
255.0	256.0	439.0
256.0	257.0	440.0
257.0	259.0	441.0
259.0	259.35	442.0

DATA TYPE: Potential Erosion Hazard

MAP SCALE: 1:24,000

DATA SOURCE: TVA/SCS Regional Soils Data Base

RESPONSIBLE ORGANIZATION: Office of Natural Resources

Resource Services

Geographic Information Services

GENERAL DESCRIPTION:

Land areas were classified according to general erodability potential using criteria established by the USDA Soil Conservation Service. The data were interpreted from landtype maps prepared by the TVA/SCS Regional Soils Data Base staff using topographic and detailed soil maps. Data collection involved consultation with soil scientists in each of the three States and field verification.

DATA CATEGORIES:

Map Symbol



Slight

Land that would not exceed the allowable soil losses (less than 5 tons/acre/year) when subjected to common farming practices.



Moderate

Land that would not exceed soil losses of 5 tons/acre/year when good farming practices such as contouring and crop rotation were applied.



Severe

Land that would greatly exceed soil losses at 5 tons/acre/year unless intensive conservation practices such as terracing and minimum tillage were applied.

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.

(1c) Minimize soil erosion from TVA lands and encourage use of soil erosion control practice on adjoining land.

(1d) Promote and implement watershed conservation practices.

Mandates

(1) National Environmental Policy Act of 1969 (NEPA)

DATA TYPE: Threatened or Endangered Species and Unique Biological or Geological Features

MAP SCALE: 1:24,000

DATA SOURCE: TVA Program Data, State Natural Heritage Programs

RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Land and Forest Resources
Regional Natural Heritage Project

GENERAL DESCRIPTION:

The data maps identify known occurrences of threatened, endangered, or rare plant (special plant) or animal (special animal) species; unique biological features; or unique geological features. An occurrence is defined as an individual location of the species or feature. Plant and animal species fall under one of the following status codes:

Status Code

US1 - Species Listed as Endangered by the U.S. Fish and Wildlife Service. Occurrences include:

- (1) Red-cockaded woodpecker - Picoides borealis
- (2) Gray bat - Myotis grisescens
- (3) Indiana bat - Myotis sodalis
- (4) Southern bald eagle - Haliaeetus leucocephalus
leucocephalus

US2 - Species Listed as Threatened by the U.S. Fish and Wildlife Service. Occurrences include:

- (1) Alabama cave fish - Speoplatyrhinus poulsoni
- (2) Spotfin chub - Hybopsis monacha

SL1 - Species Listed on the Smithsonian Institution Rare Plant List. Occurrences include:

- (1) Neviusia - Neviusia alabamensis
- (2) Glade cress - Leavenworthia alabamica

AL2 and/or MS2 - Species Listed as Threatened by Alabama or Mississippi. Occurrences include:

- (1) Hellbender - Cryptobranchus alleghaniensis
alleghaniensis: AL2
- (2) Tuscumbia darter - Etheostoma tuscumbia: AL2
- (3) Southern coal skink - Eumeces anthracinus pluvialis: MS2

- (4) Ginseng - Panax quinquefolium: MS2
- (5) Walking fern - Asplenium rhizophyllum: MS2
- (6) Shooting star - Dodecatheon meadia: MS2
- (7) Alabama lip-fern - Cheilanthes alabamensis: MS2
- (8) Blackstem spleenwort - Asplenium resiliens: MS2
- (9) Glade cress - Leavenworthia alabamica: AL2
- (10) Blue sucker - Cycleptus elongatus: AL2

TN3 and/or AL3 and/or MS2 - Species Listed by Tennessee, Alabama, or Mississippi as Rare, of Special Concern, Peripheral, or in Need of Management. Occurrences include:

- (1) Allegheny spurge - Pachysandra procumbens: MS3
- (2) Anise root - Ozmorhiza longistylis: MS3
- (3) Banded sculpin - Cottus carolinae: MS3
- (4) Bewick's wren - Thryomanes bewikii: AL3
- (5) Black buffalo - Ictiobus niger: MS3
- (6) Black kingsnake - Lampropeltis getulus niger: MS3
- (7) Black snakeroot - Cimicifuga racemosa: MS3
- (8) Blacknose dace - Rhinichthys atratulus: MS3
- (9) Bladdernut - Staphylea trifolia: MS3
- (10) Blenny darter - Etheostoma blennius: AL3
- (11) Blue ash - Fraxinus quadrangulata: MS3
- (12) Dutchman's breeches - Dicentra cucullaria: AL3
- (13) Dwarf larkspur - Delphinium tricornis: MS3
- (14) Early saxifrage - Saxifraga virgiensis: MS3
- (15) False goldenrod - Solidago sphacelata: MS3
- (16) Fantail darter - Etheostoma flabellare: MS3
- (17) Foamflower - Tiarella cordifolia: MS3
- (18) Giant chickweed - Stellaria pubera: MS3
- (19) Green anole - Anolis carolinensis carolinensis: TN3
- (20) Green frog - Rana clamitans melanota: MS3
- (21) Green violet - Hybanthus concolor: MS3
- (22) Hairy heuchera - Heuchera villosa var. macrorrhiza: MS3
- (23) Hairy woodrush - Luzula acuminata: MS3
- (24) Jacob's ladder - Polemonium reptans: MS3
- (25) Keen's bat - Myotis keenii: AL3
- (26) Kentucky coffeetree - Gymnocladus dioica: MS3

- (27) Large whorled pogonia - Isotria verticillata: AL3
(28) Leatherwood - Dirca palustris: MS3
(29) Log perch - Percina caprodes: MS3
(30) Milkvetch - Astragalus canadensis: MS3
(31) Mock orange - Philadelphus hirsutus: MS3
(32) Mole snake - Lampropeltis calligaster rhombomaculata: MS3
(33) Mottled sculpin - Cottus bairdi: AL3
(34) Mountain chorus frog - Pseudacris brachyphona: MS3
(35) Mountain geranium - Heuchara americana: MS3
(36) Mountain holly - Ilex montana: MS3
(37) Mountain stonecrop - Sedum ternatum: MS3
(38) Muhly - Muhlenbergia tenuiflora: MS3
(39) Northern red salamander - Pseudotriton ruber ruber: MS3
(40) Northern scarlet snake - Cemophora coccinea copei: MS3
(41) Northern two-lined salamander - Eurycea bislineata
bislineata: MS3
(42) Northern water snake - Natrix sipedon sipedon: MS3
(43) Ouachita map turtle - Graptemys pseudogeographica
ouachitensis: MS3
(44) Popeye shiner - Notropis ariommus: AL3
(45) Prairie vole - Microtus ochrogaster: AL3
(46) Privet - Ligusticum canadense: MS3
(47) Purple cliff-brake - Pellaea atropurpurea: MS3
(48) Pussy-toes - Antennaria solitaria: MS3
(49) Queen snake - Regina septembittata: MS3
(50) Redline darter - Etheostoma rufilineatum: MS3
(51) Rock geranium - Heuchera americana: MS3
(52) Rockcress - Arabis canadensis: MS3
(53) Rosefin shiner - Notropis ardens: MS3
(54) Rosyside dace - Clinostomus funduloides: MS3
(55) Scorpion weed - Phacelia dubia: MS3
(56) Sedge - Carex jamesii: MS3
(57) Sedge - Carex picta: MS3
(58) Sedge - Carex prasina: MS3
(59) Sedge - Carex stricta: MS3
(60) Silvery atherium - Athyrium thelypteroides: MS3

- (61) Slender toothwort - Dentaria heterophylla: MS3
- (62) Slenderhead darter - Percina phoxocephala: MS3
- (63) Smallmouth bass - Micropterus dolomieu: MS3
- (64) Southeastern shrew - Sorex longirostris: AL3
- (65) Southern cavefish - Typhlichthys subterraneus: AL3
- (66) Spotfin shiner - Notropis spilopterus: MS3
- (67) Spottail darter - Etheostoma squamiceps: MS3
- (68) Spotted wintergreen - Chimaphila maculata: MS3
- (69) Steelcolor shiner - Notropis whipplei: MS3
- (70) Stonecrop - Sedum ternatum: MS3
- (71) Stripetail darter - Etheostoma kennicotti: MS3
- (72) Tennessee cave salamander - Gyrinophilus palleucus: AL3
- (73) Troglobitic cray-fish - Cambarus (aviticambarus)
jonesi: AL3
- (74) Troglobitic cray-fish - Procambarus (renoticambarus)
pecki: AL3
- (75) Turtlehead - Chelone glabra: MS3
- (76) Tuscumbia darter - Etheostoma tuscumbia: TN3
- (77) Twisted trillium - Trillium stamineum: MS3
- (78) Two leaved toothwort - Dentaria diphylla: MS3
- (79) Undescribed darter - Etheostoma (Ulocentra) sp.: MS3
- (80) Virginia pine - Pinus virginiana: MS3
- (81) Wahoo - Euonymus atropurpureus: MS3
- (82) Wild ginger - Asarum canadense: MS3
- (83) Woolly lip-fern - Cheilanthes lanosa: MS3
- (84) Yellowwood - Cladrastis kentuckea: MS3

Unique biological features include champion trees and heronries. The location of caves is shown in the unique geological features category. Many of the caves serve as habitats for the threatened, endangered, or rare plant or animal species identified above.

DATA CATEGORIES:

The numbers on the map symbols are referenced to a detailed occurrence list, which is not included in the Data Base appendix.

Map Symbol



Special Plant - 118 occurrences



Special Animal - 93 occurrences



Unique Biological Features - 10 occurrences



Unique Geological Features - 45 occurrences

USE IN RESERVOIR PLAN DEVELOPMENT

Goals Addressed

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.
- (1i) Promote the identification, protection, and acquisition of significant natural and scenic features in cooperation with other agencies.
- (6b) Emphasize the protection of environmental quality and amenities (air, water, noise, and aesthetics) in the implementation of TVA programs on TVA lands and encourage these considerations in the development of adjoining lands.

Mandates

- (1) National Environmental Policy Act of 1969 (NEPA)
- (2) Endangered Species Act of 1973 (with Amendments)

DATA TYPE: Upland Wildlife
MAP SCALE: 1:24,000
DATA SOURCE: TVA Program, Tennessee Wildlife Resources Agency, and Alabama
Department of Conservation and Natural Resources Data
RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Land and Forest Resources
Wildlife Resources Development Program

GENERAL DESCRIPTION:

Areas containing significant known populations of upland wildlife are shown on the data maps. Major emphasis must be placed on those areas with a history of 10 or more years of active wildlife management, e.g., Seven Mile Island and Lauderdale Wildlife Management Areas (WMA's). These areas contain viable populations of a variety of wildlife species and provide significant local and regional public outdoor recreational use. Jurisdiction over and management of these wildlife management areas belongs to the Alabama Department of Conservation and Natural Resources. TVA owns all lands (2,350 acres) within the Seven Mile Island WMA and 4,750 acres of the 20,000 acres leased by the State for public use on the Lauderdale WMA. The continued existence of both WMA's is dependent on the retention of TVA property presently under lease.

DATA CATEGORIES:

Map Symbol

2.1 Forest-Related Wildlife

Wildlife species represented in this category include birds and mammals primarily dependent on a forest habitat for some or all of their life requirements. The conversion of native hardwood forests to a pine monoculture, agriculture, and industrial uses is rapidly reducing the amount of prime hardwood forest habitat available to wildlife in Alabama and throughout the Southeast. Consequently retention of native hardwood forests on TVA lands is of prime importance for the continued existence of a viable forest wildlife population at Pickwick. TVA forested lands along the reservoir and within the WMA's are composed mainly of native hardwood species.

Map Symbol

2.2 Agriculture-Related Wildlife

Wildlife species represented by this category include birds and mammals whose life requirements are provided for or enhanced by agricultural operations. Agricultural lands actively managed for wildlife can significantly increase wildlife populations and provide much needed recreational opportunities for the general public. Seven Mile Island WMA contains 65 acres of actively managed agricultural lands.

2.3 Big Game

The big game wildlife species found at Pickwick are deer and turkey. While these two species may benefit from limited agricultural operations, viable populations are dependent on large contiguous areas of native forests. Unfortunately changing land uses have reduced the amount and quality of deer and turkey habitat in the Southeast region, while increasing human populations have intensified demands on public lands for big game hunting and viewing opportunities. These trends make the retention of big game habitat on TVA lands desirable to the Valley citizenry.

2.4 Nongame Unique Habitat

Wildlife habitat restricted in area or not commonly found on the reservoir is represented by this category. The principal area identified is Koger Island, which provides winter roosting habitat for thousands of nongame bird species.

2.5 Wildlife Management Areas

This category represents those lands presently under active wildlife management by the Alabama Department of Conservation and Natural Resources. Retention of these WMA's is critical because of their ability to support viable wildlife populations and public use demands for wildlife-related recreation opportunities. TVA-owned lands are essential to the operation of these management areas. Seven Mile Island WMA is owned totally by TVA, and the 4,750 acres of TVA land within the Lauderdale WMA constitutes the nucleus around which wildlife

Map Symbol

management efforts are concentrated. Although residential, industrial, and intensive recreational development would adversely impact operation of either area, well-regulated recreational and forestry activities could have positive benefits.

2.6 Terrestrial Furbearers

This category pertains to furbearing mammals such as bobcat and fox. Bobcat are now under intensive investigation by biologists to determine their status in the State of Alabama and throughout the Southeast. Areas with known bobcat populations are shown on the Lauderdale WMA.

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.
- (1g) Protect and enhance the important fisheries and wildlife resource habitats in and on TVA waters and lands.
- (2) Provide a diversity of quality recreation opportunities on the reservoir and adjoining TVA land.
- (2e) Maintain and improve the quality of wildlife and fishing recreational opportunities.
- (6) Emphasize factors in reservoir land planning that have a positive influence on quality of life.
- (6b) Emphasize the protection of environmental quality and amenities (air, water, noise, and aesthetics) in the implementation of TVA programs on TVA lands and encourage these considerations in the development of adjoining lands.
- (8) Improve the mechanisms for interagency and public coordination concerning reservoir resource management and development.

Mandate

- (1) National Environmental Policy Act of 1969 (NEPA)

DATA TYPE: Water Quality, Water Sampling Stations, and Stream Segments
MAP SCALE: 1:24,000
DATA SOURCE: TVA Program, U.S. Environmental Protection Agency, U.S.
Geological Survey, Corps of Engineers, and Tennessee Division
of Water Quality Control Data
RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Water Resources
Regional Water Management Program

GENERAL DESCRIPTION:

Water Quality Management Plans developed by each State have attempted to address water quality problems associated with such activities as agriculture, forestry, and construction. These non-point sources of pollution are controlled by the voluntary application of best management practices (BMP's) designed to minimize adverse impacts. These BMP's generally consist of measures to prevent soil loss by providing barriers to sediment transport or by maintaining ground cover, which prevents soil movement. As a water quality management agency, TVA will be committed to the use of BMP's in all its land use activities. At this time, the States have not completed the process of identifying BMP's for all activities. As these practices do become available, they must be incorporated into all land development programs, leases, etc. These BMP's are not constraints on land use, but rather they are a requirement that preventive measures be incorporated into development activities.

The Water Quality Management Plan for Alabama, Mississippi, and Tennessee was reviewed for any further information applicable to Pickwick Reservoir. No additional constraints or restrictions relative to land use were identified.

Water sampling locations in the Pickwick Reservoir area are listed in table 5. Classified stream segments grouped under Tennessee, Mississippi, and Alabama are presented in table 6. These stream segments are classified according to those uses determined by the State to be reasonable and attainable stream uses. For each use, a set of criteria was established that defined the level of water quality necessary to achieve that use.

Table 5. Water Sampling Locations in the Pickwick Reservoir Area

<u>Station Label</u>	<u>Agency*</u>	<u>Location</u>	<u>Station Number</u>
TV1	TVA	Tennessee River mile (TRM) 259.8	017277
TV2	TVA	TRM 259.7	016913
TV3	TVA	TRM 259.45	016999
TV4	TVA	TRM 259.0	017112
TV5	TVA	TRM 258.5	017111
TV6	TVA	TRM 258.4	016914
TV7	TVA	TRM 257.9	017110
TV8	TVA	TRM 257.8	017109
TV9	TVA	TRM 257.5	017108
TV10	TVA	TRM 255.5	016915
TV11	TVA	TRM 254.3	016916
TV12	TVA	TRM 254.0	016978
TV13	TVA	TRM 253.5	017107
TV14	TVA	TRM 253.4	016979
TV15	TVA	TRM 252.5	016917
TV16	TVA	TRM 252.3	016980
TV17	TVA	TRM 251.5	017106
TV18	TVA	TRM 251.0	016918
TV19	TVA	TRM 248.0	016919
TV20	TVA	TRM 247.5	017147
TV21	TVA	TRM 247.0	017269, 016977
TV22	TVA	TRM 246.1	017105
TV23	TVA	TRM 245.5	017240
TV24	TVA	TRM 245.3	017239
TV25	TVA	TRM 245.0	017238
TV26	TVA	TRM 244.9	016920
TV27	TVA	TRM 244.1	017237
TV28	TVA	TRM 244.0	017267
TV29	TVA	TRM 243.5	017236
TV30	TVA	TRM 243.0	017235
TV31	TVA	TRM 241.0	017266
TV32	TVA	TRM 240.0	017104
TV33	TVA	TRM 239.3	016921
TV34	TVA	TRM 238.7	016943
TV35	TVA	TRM 238.1	016941
TV36	TVA	TRM 237.0	016922
TV37	TVA	TRM 236.0	017103
TV38	TVA	TRM 230.0	016923
TV39	TVA	TRM 224.0	017102
TV40	TVA	TRM 223.0	016924
TV41	TVA	TRM 220.0	016942
TV42	TVA	TRM 214.0	475600
TV43	TVA	TRM 210.0	475816
TV44	TVA	TRM 207.6	475001
TV45	TVA	TRM 206.7	475002
TV46	TVA	TRM 206.5	475815
TV47	TVA	TRM 206.4	475559
TV48	TVA	TRM 205.8	475560
TV49	TVA	TRM 205.7	475003

Table 5 (Continued)

<u>Station Label</u>	<u>Agency*</u>	<u>Location</u>	<u>Station Number</u>
TV50	TVA	TRM 205.6	475004
TV51	TVA	TRM 205.4	475005
TV52	TVA	TRM 205.3	475561
TV53	TVA	TRM 205.1	475006
TV54	TVA	TRM 205.0	475814
TV55	TVA	TRM 204.9	475562
TV56	TVA	TRM 204.4	475563
TV57	TVA	TRM 204.0	475007
TV58	TVA	Yellow Creek 7.5	280009
TV59	TVA	Trib. to TRM 220.0	280012
TV60	TVA	Yellow Cr. - Embayment	280004
TV61	TVA	Trib. to Bullard Branch	280008
TV62	TVA	Trib. to Yellow Cr. 6.6	28007
TV63	TVA	Trib. to TRM 218.7	280011
TV64	TVA	Trib. to Yellow Cr. 4.45	280006
TV65	TVA	Trib. to TRM 217.3	280010
TV66	TVA	Trib. to Yellow Cr. 1.5	280005
TV67	TVA	Trib. to TRM 244.0	017278
TV68	TVA	Bear Cr.	017153
TV69	TVA	Bear Cr.	017152
EP1	EPA	Little Bear Cr.	0109C1
EP2	EPA	Spring Cr.	0109B1
EP3	EPA	Sweetwater Cr.	0109L1
EP4	EPA	Cypress Cr.	0109P1
EP5	EPA	Cane Cr.	0109D1
EP6	EPA	Big Bear Cr.	0109F1
EP7	EPA	Buzzard Roost Cr.	0109E1
EP8	EPA	Pickwick Lake	010904
EP9	EPA	Indian Creek	0109G1
EP10	EPA	Pickwick Lake	010905
EP11	EPA	Yellow Creek	010941
EP12	EPA	Pickwick Lake	010903
EP13	EPA	Second Creek	0109M1
EP14	EPA	Pickwick Lake	010902
EP15	EPA	Tennessee River	1019J1
EP16	EPA	Pickwick Lake	010901
GS1	USGS	Pond Cr.	03589257
GS2	USGS	Tennessee River - Florence	03589500
GS3	USGS	Sweetwater Cr. - Florence	03389450
GS4	USGS	Cypress Cr. - Florence	03590000
GS5	USGS	Tenn. Tom Bigby Waterway	03592824
GS6	USGS	Yellow Creek - Crossroads	03592825
GS7	USGS	Yellow Creek - Goat Island	03592830
GS8	USGS	Yellow Creek mile 1.0	03592890
GS9	USGS	Robinson Cr. near Connie, TN	03593098
GS10	USGS	Tennessee River - Pickwick Landing	03593005
GS11	USGS	Tennessee River - Smithsonian	03590680
CE1	COE	Yellow Creek 6.0	PIC20008
CE2	COE	Yellow Creek 11.0	PIC20009
CE3	COE	Yellow Creek 11.6	PIC10100
CE4	COE	Yellow Creel 1.0	PIC20007

Table 5. (Continued)

<u>Station Label</u>	<u>Agency*</u>	<u>Location</u>	<u>Station Number</u>
TN1	TDWQC	Tennessee River - above Yellow Creek	03353, 004000
TN2	TDWQC	Tennessee River - State Line	003355
TN3	TDWQC	Robinson Creek	002230
TN4	TDWQC	Chambers Creek	000490
TN5	TDWQC	Chambers Creek	000500
TN6	TDWQC	Tennessee River	003370
TN7	TDWQC	Chambers Creek	000480
TN8	TDWQC	Chambers Creek	000510
TN9	TDWQC	Chambers Creek	000470
TN10	TDWQC	Tennessee River	003360
TN11	TDWQC	Tennessee River	HGM030
TN12	TDWQC	Tennessee River	00J380

*Agencies included are:

Tennessee Valley Authority - TVA
 U.S. Environmental Protection Agency - EPA
 U.S. Geological Survey - USGS
 Corps of Engineers - COE
 Tennessee Division of Water Quality Control - TDWQC

BEST DOCUMENT AVAILABLE

Table 6. Classified Stream Segments in the Pickwick Reservoir Area.

<u>Segment Number</u>	<u>State</u>	<u>Stream Name</u>	<u>From</u>	<u>To</u>	<u>Classified Uses</u>	<u>Segment Class</u>
1	Tennessee	Tennessee River	Kentucky State Line	AL/MS State Line	All uses	EL
2	Mississippi	Tennessee River	Tenn. State Line	AL State Line	Public water supply, Fish and wildlife	EL
3	Mississippi	Yellow Creek	Tennessee River	Source	Public water supply, Fish and wildlife	EL
4	Alabama	Tennessee River	Mile 214.3	Mile 247.6	Public water supply, swimming, Fish and wildlife	EL
5*	Alabama	Tennessee River	Mile 247.6	Mile 254.2	Fish and wildlife	EL
6*	Alabama	Tennessee River	Mile 254.2	Wilson Dam	Public water supply Fish and wildlife	EL ⁴⁹
7	Alabama	Bear Creek	Tennessee River	U.S. 72	Swimming, fish, and wildlife	EL
8	Alabama	Bear Creek	U.S. 72	Source	Fish and wildlife	EL
9	Alabama	Second Creek	Tennessee River	State Line	Fish and wildlife	EL
10	Alabama	Cypress Creek	Tennessee River	Florence Water Plant	Fish and wildlife	EL
11*	Alabama	Pond Creek	Tennessee River	Source	Agricultural & Industrial Water Supply	WQL
12	Alabama	Spring Creek	Tennessee River	Source	Fish and wildlife	EL
13	Alabama	Little Bear Creek	Tennessee River	Source	Fish and wildlife, swimming	EL
14	Alabama	Cane Creek	Tennessee River	Source	Fish and wildlife, swimming	EL
15	Alabama	Sweetwater Creek	Tennessee River	Source	Fish and wildlife	EL

*Denotes segments with significant water quality impairment. Segments 5 and 6 experience low dissolved oxygen releases from Wilson Dam. Segment 11 is impacted by an extremely heavy concentration of industrial and domestic waste dischargers.

Segments are designated as either effluent limited (EL) or water quality limited (WQL). These terms refer to the types of constraints that are applied to waste discharges into the segment. Regulations promulgated for each industrial classification define minimum treatment levels that may be required. If these minimum requirements are adequate to meet appropriate criteria, the segment is said to be effluent limited. If these requirements are not adequate, more stringent requirements may be imposed based upon water quality constraints. Such a segment is then water quality limited. In the Pickwick area, all segments with the exception of Pond Creek are effluent limited. Potential discharges would likely be limited by regulations rather than by water quality constraints. It should be noted, however, that future discharges into tributaries of the Tennessee River, which are not classified specifically at this time, would probably be water quality limited. Therefore, any proposed dischargers should consult with the State regulatory agencies as early as possible.

DATA CATEGORIES:

Map Symbol

TV1-TV69	TVA Water Sampling Stations
EP1-EP16	U.S. Environmental Protection Agency Water Sampling Stations
GS1-GS11	U.S. Geological Survey Water Sampling Stations
CE1-CE4	Corps of Engineers Water Sampling Stations
TN1-TN12	Tennessee Division of Water Quality Control Water Sampling Stations
1-15	Stream Segment Numbers

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.
- (6) Emphasize factors in reservoir land planning that have a position influence on quality of life.
- (6b) Emphasize the protection of environmental quality and amenities (air, water, noise, and aesthetics) in the implementation of TVA

programs on TVA lands and encourage these considerations in the
in the development of adjoining lands.

Mandates

- (1) National Environmental Policy Act of 1969 (NEPA)
- (2) Clean Water Act of 1977
- (3) Resource Conservation and Recovery Act of 1976
- (4) Executive Order 12088: Federal Compliance with Pollution
Control Standards

DATA TYPE: Waterfowl

MAP SCALE: 1:24,000

DATA SOURCE: TVA Program, Tennessee Wildlife Resources Agency, and Alabama
Department of Conservation and Natural Resources Data

RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Land and Forest Resources
Wildlife Resources Development Program

GENERAL DESCRIPTION:

According to Bellrose's Ducks, Geese, and Swans of North America, between 31,000 and 100,000 dabbling ducks, 50,000 to 250,000 diving ducks, and 5,000 to 25,000 Canada geese use a migration route that includes Pickwick Reservoir. Prior to the formation of Wheeler Wildlife Refuge in 1941, the Pickwick Reservoir area, before inundation, was the major wintering waterfowl concentration area in northern Alabama. Although wintering waterfowl numbers on Pickwick Reservoir (between 3,000 and 6,000 birds) do not approach the numbers found on Wheeler Reservoir, the reservoir does have areas that are considered valuable as wintering waterfowl habitat. Additionally some of the most unique and productive wood duck areas in northern Alabama are found at Pickwick. These important areas are briefly described in the following data categories.

DATA CATEGORIES:

Map Symbol

1.1 Wood Duck Production Areas

The wood duck (Aix sponsa) is the only waterfowl species that breeds in substantial numbers in the Tennessee Valley region. The distribution of breeding populations of wood ducks is closely related to bottom land hardwood forest types that contain: (1) trees of sufficient size to form usable nest cavities and (2) water areas that can satisfy cover and food requirements. The areas delineated on the map meet these criteria and are known to support breeding populations of wood ducks. The protection of bottom land hardwoods and temporarily flooded riparian zones is essential to maintaining viable wood duck populations.

Map Symbol

1.2 Migratory Duck Resting/Feeding Areas

The areas delineated as migratory duck resting/feeding areas are those known from aerial census data to consistently attract and hold dabbling (e.g., mallards, gadwalls, etc.) and/or diving (e.g., goldeneye, scaup, etc.) ducks. Dabbling ducks are attracted to areas such as shallow water sites with aquatic vegetation and flooded bottom land hardwood sites for feeding and resting. Open water areas isolated from human disturbance are utilized as resting/roosting areas by both dabbling and diving ducks. Diving ducks prefer more open water areas where aquatic invertebrates and/or submerged or floating aquatic plants are utilized as primary food sources. The areas delineated on the map are characterized by one or more of the habitat requirements mentioned above.

1.3 Migratory Geese Resting/Feeding Areas

The areas delineated as migratory geese resting/feeding areas are those known to be frequented by migratory Canada geese. The primary reasons that geese are attracted to these areas are (1) isolation from human disturbance and (2) availability of aquatic vegetation for some feeding activity.

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.
- (1g) Protect and enhance the important fisheries and wildlife resource habitats in and on TVA waters and lands.
- (2) Provide a diversity of quality recreation opportunities on the reservoir and adjoining TVA land.
- (2e) Maintain and improve the quality of wildlife and fishing recreation opportunities.
- (6) Emphasize factors in reservoir land planning that have a positive influence on quality of life.

- (6b) Emphasize the protection of environmental quality and amenities (air, water, noise, and aesthetics) in the implementation of TVA programs on TVA lands and encourage these considerations in the development of adjoining lands.
- (8) Improve the mechanisms for interagency and public coordination concerning reservoir resource management and development.

Mandates

- (1) National Environmental Policy Act of 1969 (NEPA)
- (2) Executive Order 11990: Protection of Wetlands

DATA TYPE: Wetlands

MAP SCALE: 1:24,000

DATA SOURCE: Compiled by TVA Mapping Services Branch, from Color Aerial
Photography Dated August 1980

RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Land and Forest Resources
Wildlife Resources Development Program
and
Office of Natural Resources
Resource Services
Mapping Services Branch
Remote Sensing Section

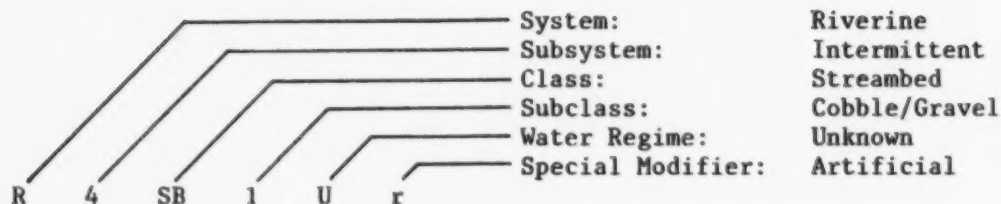
GENERAL DESCRIPTION:

Pickwick Reservoir wetlands were delineated and classified using the U.S. Fish and Wildlife Service National Wetlands Inventory mapping conventions and the system developed by Cowardin et al. entitled Classification of Wetlands and Deepwater Habitats of the United States. This system includes deepwater habitats, which were delineated along with the other wetland types. These deepwater habitats (L10WHh, L20WHh, POWHh, POWK, R2UB3Hh) would not be identified as wetlands with respect to TVA's "Guidelines for Implementing TVA Code IX - Floodplain Management and Protection of Wetlands."

A variety of wetland "types" is found on Pickwick Reservoir and its zone of influence. The most "unique" wetland type is the Palustrine forested wetland dominated by bald cypress trees located in the Coffee Slough area behind Seven Mile Island. This is the easternmost locale of naturally occurring bald cypress trees on the Tennessee River system.

DATA CATEGORIES:

An example of the wetland classification system is shown below. A list of specific classification codes follows the example. Only a small subset of these wetland types occurs in the Pickwick Reservoir area.



Map Symbol

Map Symbol

(System)
 P Palustrine
 R Riverine

(Subsystem)

- 2 Lower Perennial
- 3 Upper Perennial
- 4 Intermittent
- 5 Unknown Perennial

L Lacustrine

- 1 Limnetic
- 2 Littoral

(Class)
 AB Aquatic Bed

(Subclass)

- 1 Submergent Algal
- 2 Submergent Vascular
- 3 Submergent Moss
- 4 Floating-Leaved
- 5 Floating
- 6 Unknown Submergent
- 7 Unknown Surface

BB Beach/Bar

- 1 Cobble/Gravel
- 2 Sand

EM Emergent

- 1 Persistent
- 2 Nonpersistent
- 3 Narrow-Leaved Nonpersistent
- 4 Broad-Leaved Nonpersistent
- 5 Narrow-Leaved Persistent
- 6 Broad-Leaved Persistent

FL Flat

- 1 Cobble/Gravel
- 2 Sand
- 3 Mud
- 4 Organic
- 5 Vegetated Pioneer
- 6 Vegetated Nonpioneer

Map SymbolMap Symbol

FO Forested

- 1 Broad-Leaved Deciduous
- 2 Needle-Leaved Deciduous
- 3 Broad-Leaved Evergreen
- 4 Needle-Leaved Evergreen
- 5 Dead
- 6 Deciduous
- 7 Evergreen

ML Moss/Lichen

- 1 Moss
- 2 Lichen

OW Open Water/
Unknown Bottom

RB Rock Bottom

- 1 Bedrock
- 2 Boulder

RS Rocky Shore

- 1 Bedrock
- 2 Boulder
- 3 Vegetated Nonpioneer

SB Streambed

- 1 Cobble/Gravel
- 2 Sand
- 3 Mud
- 4 Organic

SS Scrub/Shrub

- 1 Broad-Leaved Deciduous
- 2 Needle-Leaved Deciduous
- 3 Broad-Leaved Evergreen
- 4 Needle-Leaved Evergreen
- 5 Dead
- 6 Deciduous
- 7 Evergreen

UB Unconsolidated
Bottom

- 1 Cobble/Gravel
- 2 Sand
- 3 Mud
- 4 Organic

Map Symbol

(Water Regime Modifiers)

- A Temporary
- B Saturated
- C Seasonal
- D Seasonal/Well-Drained
- E Seasonal/Saturated
- F Semipermanent
- G Intermittently Exposed
- H Permanent
- J Intermittently Flooded
- Z Intermittently Exposed/Permanent (G,H Above)
- W Intermittently Flooded/Temporary (A,J Above)
- Y Saturated Semipermanent/All Seasonals (B,C,D,E,F Above)
- U Unknown
- K Artificial

(Other Modifiers)

- b Beaver
- d Partially Drained/Ditched
- f Farmed
- h Diked/Impounded (Dam)
- r Artificial
- s Spoil
- x Excavated

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.
- (6) Emphasize factors in reservoir land planning that have a positive influence on quality of life.
- (6b) Emphasize the protection of environmental quality and amenities (air, water, noise, and aesthetics) in the implementation of TVA programs on TVA lands and encourage these considerations in the development of adjoining lands.

Mandates

- (1) National Environmental Policy Act of 1969 (NEPA)
- (2) Executive Order 11990: Protection of Wetlands

DATA TYPE: Wetlands Wildlife

MAP SCALE: 1:24,000

DATA SOURCE: TVA Program, Tennessee Wildlife Resources Agency, and
Alabama Department of Conservation and Natural Resources
Data

RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Land and Forest Resources
Wildlife Resources Development Program

GENERAL DESCRIPTION:

Wetland habitats constitute a valuable natural resource that is in limited supply across the Tennessee Valley region. Some forestry and agricultural landuse practices have destroyed or severely impacted many wetland areas. The formation of reservoirs in the Tennessee Valley has destroyed some wetland habitats while creating others. The importance of wetlands as distinct ecosystems in the Tennessee Valley cannot be overstated. Their importance to wetlands wildlife groups at Pickwick Reservoir is briefly described in the following data categories.

DATA CATEGORIES:

Map Symbol

1. Migratory Shore Bird/Wading Bird Areas

The areas shown as important to migratory shore birds and wading birds are generally shallow water areas with exposed mudflats and/or emergent wetland vegetation. The exposed mudflats, prevalent during drawdown periods, are very important feeding areas for migratory shore birds, e.g., sandpipers, yellowlegs. The shallow water areas in combination with emergent and scrubshrub vegetation are very important feeding areas for wading birds and nesting habitat for species such as great blue herons.

2. Migratory Gull/Tern Concentration Areas

The reservoirs of the Tennessee Valley have in recent years attracted increasing numbers of migratory and wintering gulls, such as herring and billed gulls and terns. The two primary reasons for the increase in numbers of these birds

Map Symbol

are (1) security offered by the openness of the large impoundments, and (2) a plentiful food source consisting primarily of shad (threadfin and gizzard) minnows. These minnows tend to school near the hydroelectric dams, and this is where gulls and terns congregate to feed on them. These areas are delineated on the map.

3. Eagle/Osprey Concentration Areas

The bald eagle (Haliaeetus leucocephalus) is listed as endangered on both Federal and State Registers. The osprey (Pandion haliaetus) is considered endangered by the scientific community of Alabama and the State of Tennessee. Both species utilize the entire reservoir during migration. The sites depicted as concentration areas are those where numbers of wintering eagles and migratory osprey have been seen consistently over the past several years. These concentration areas are associated with habitat components preferred by eagles and osprey, such as (1) water areas where fish, their primary food source, may be concentrated or vulnerable; (2) secluded areas with limited human activity; (3) shorelines with large trees and snags for diurnal perching in close proximity to feeding areas; and (4) specific to eagles, wintering waterfowl concentration areas where crippled waterfowl may be utilized as a food source.

4. Aquatic Furbearer Concentration Areas

Aquatic furbearers (e.g., muskrat, beaver, and raccoon) common to Pickwick Reservoir utilize most shoreline areas, but prefer those with particular habitat components. These include: (1) vegetated shorelines for cover and travel lanes; (2) shallow water areas with logs and stumps interspersed; (3) adequate food supplies in the form of aquatic vegetation, bottom land hardwoods, clams, mussels, and crustaceans; and (4) areas of high water quality. Another less common furbearer of special concern that inhabits some tributary streams of Pickwick Reservoir is the river otter. The importance of aquatic furbearers as an integral

Map Symbol

component of aquatic ecosystems, and as a source for economic gain via the fur market cannot be overemphasized. The areas of known furbearer concentrations are delineated on the accompanying map.

5. Unique Habitats

The most "unique" wetland habitat type found on Pickwick Reservoir is the forested wetland that is dominated by bald cypress (Taxodium distichum) and is located in the Coffee Slough area adjacent to Seven Mile Island. This is the easternmost range of naturally occurring bald cypress on the Tennessee River system. The importance of this unique wetland type--and bottom land hardwoods in general--for nesting habitat, cover, and food source for various species of waterfowl, wading birds, and aquatic mammals cannot be overemphasized.

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.
- (1g) Protect and enhance the important fisheries and wildlife resource habitats in and on TVA waters and lands.
- (2) Provide a diversity of quality recreation opportunities on the reservoir and adjoining TVA land.
- (2e) Maintain and improve the quality of wildlife and fishing recreational opportunities.
- (6) Emphasize factors in reservoir land planning that have a positive influence on quality of life.
- (6b) Emphasize the protection of environmental quality and amenities (air, water, noise, and aesthetics) in the implementation of TVA programs on TVA lands and encourage these considerations in the development of adjoining lands.
- (6d) Recognize the importance of a diverse economic base in supplying job opportunities to provide a quality lifestyle.

- (8) Improve the mechanisms for interagency and public coordination concerning reservoir resource management and development.

Mandates

- (1) National Environmental Policy Act of 1969 (NEPA)
(2) Executive Order 11990: Protection of Wetlands

Social and Cultural Data

DATA TYPE: Architectural, Historic, and Archaeological Resources

MAP SCALE: 1:24,000

DATA SOURCE: TVA Program Data

RESPONSIBLE ORGANIZATION: Office of Natural Resources

Division of Land and Forest Resources

Cultural Resources Program

GENERAL DESCRIPTION:

The data maps show all known locations of architectural, historic, and archaeological sites. For any specific development project, an evaluation will need to be made.

In most cases, a survey will be required for a specific area, particularly for archaeology. All areas not marked could potentially have archaeological sites. There are many areas that have only superficial evaluations for architectural and historic sites. These would be surveyed in detail depending on the proposed project size, scope, and impact.

Within the cities of Florence, Sheffield, and Tuscumbia, there are nearly 60 structures listed as potentially eligible for the National Register of Historic Places. These sites are not marked on the data maps. However, the entire area of the cities is indicated as being potentially eligible and in need of survey. Certain sites in these towns are already designated and are indicated on the map.

In certain situations, areas along roadways have been designated as possibly critical, even though they fall outside the influence zone. Traffic or highway strip development generated by a project could impact architectural or historic sites located along these arteries.

In terms of archaeology, the concern is direct impact on the site where the ground will be disturbed by the project. In terms of architecture and history, the concern is also direct impact where the structure will be damaged or destroyed. Indirect impacts are also of concern including visual and audible. The immediate setting of a particular site is of concern as well. Disturbing this setting is also an impact.

DATA CATEGORIES:

Map Symbol

H1.#	Historic districts or sites on the National Register
H1.1	Those on Pickwick Reservation
H1.2	Those within adjacent zone
H1.3	Those outside the "zone of influence"
H2.#	Historic sites or districts potentially eligible for the National Register
H2.1	Those on Pickwick Reservation
H2.2	Those within the adjacent "zone of influence"
H2.3	Those outside the "zone of influence"
H3.#	Sites, districts, or areas that may be potentially eligible but need to be verified
H4.#	Sites or districts outside the zone that may be potentially eligible which would be impacted if the project generates development along the roadway
H4.1	Features that need verification
H5.#	Areas with minimal potential for having any historic sites
H6.#	Areas unknown and require further study
A1.	Archaeological sites in Pickwick Reservation under water part of the year
A2.	Archaeological sites in Pickwick Reservation above water throughout the year



Archaeological districts

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.

Mandates

- (1) National Environmental Policy Act of 1969 (NEPA)
- (2) Archaeological and Historic Preservation Act of 1974
- (3) Archaeological Resources Protection Act of 1979
- (4) National Historic Preservation Act of 1966
- (5) Executive Order 11593

DATA TYPE: Existing Land Use/Land Cover - Regional Review
MAP SCALE: 1:150,000
DATA SOURCE: Data Compiled From Sources Dated 1967, 1972, 1973, 1974,
1975, and 1976; Tennessee and Alabama Portions of This
Map Prepared by the United States Geological Survey;
Mississippi Portion Prepared by TVA Mapping Services Branch
RESPONSIBLE ORGANIZATION: Office of Natural Resources
Resource Services
Mapping Services Branch

GENERAL DESCRIPTION:

Land use/land cover data were mapped using a general classification system modified from J. R. Anderson, et al., 1976, A Land Use and Land Cover Classification System for Use With Remote Sensor Data, Geological Survey Professional Paper 964. Not all data categories occur within the Regional Overview area. The minimum resolution of mapping units is 4 hectares (10 acres) for categories 11-17, 23-24, 51-54, and 75 and 16 hectares (40 acres) for all other categories.

DATA CATEGORIES:

Map Symbol

- Urban or Built-up Land
 - 11 Residential
 - 12 Commercial and Services
 - 13 Industrial
 - 14 Transportation, Communications, and Utilities
 - 15 Industrial and Commercial Complexes
 - 16 Mixed Urban or Built-up Land
 - 17 Other Urban or Built-up Land
- Agricultural Land
 - 21 Cropland
 - 22 Orchards, Groves, Vineyards, Nurseries, and Ornamental Horticultural Areas
 - 23 Confined Feeding Operations
 - 24 Other Agricultural Land
 - 25 Pasture
- Rangeland
 - 31 Herbaceous Rangeland

Map Symbol

32	Shrub and Brush Rangeland
33	Mixed Rangeland
	Forest Land
41	Deciduous Forest Land
42	Evergreen Forest Land
43	Mixed Forest Land
44	Pine Plantation
51	Streams and Canals
52	Lakes
53	Reservoirs
54	Bays and Estuaries
	Wetland
61	Forested Wetland
62	Nonforested Wetland
	Barren Land
73	Sandy Areas
74	Bare Exposed Rock
75	Strip Mines, Quarries, and Gravel Pits
76	Transitional Areas
77	Mixed Barren Land

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

The land use/land cover data were used to aid a wide range of project goals that required information on the nature and extent of surface uses at the Regional Overview scale.

Mandates

(None)

DATA TYPE: Existing Land Use/Land Cover - Reservoir Area
MAP SCALE: 1:24,000
DATA SOURCE: Data Compiled by TVA, Mapping Services Branch, From Aerial
Photography Dated August 1980
RESPONSIBLE ORGANIZATION: Office of Natural Resources
Resource Services
Mapping Services Branch

GENERAL DESCRIPTION:

Land use/land cover data were mapped using a general classification system modified from J. R. Anderson, et al., 1976, A Land Use and Land Cover Classification System for Use With Remote Sensor Data, Geological Survey Professional Paper 964. Not all data categories occur within the Pickwick Reservoir project area.

DATA CATEGORIES:

Map Symbol

Urban or Built-up Land

- 11 Residential
- 12 Commercial and Services
- 13 Industrial
- 14 Transportation, Communications, and Utilities
- 15 Industrial and Commercial Complexes
- 16 Mixed Urban or Built-up Land
- 17 Other Urban or Built-up Land

Agricultural Land

- 21 Cropland
- 22 Orchards, Groves, Vineyards, Nurseries,
and Ornamental Horticultural Areas
- 23 Confined Feeding Operations
- 24 Other Agricultural Land
- 25 Pasture

Rangeland

- 31 Herbaceous Rangeland
- 32 Shrub and Brush Rangeland
- 33 Mixed Rangeland

Map Symbol

Forest Land

- 41 Deciduous Forest Land
- 42 Evergreen Forest Land
- 43 Mixed Forest Land
- 44 Pine Plantation

Barren Land

- 73 Sandy Areas
- 74 Bare Exposed Rock
- 75 Strip Mines, Quarries, and Gravel Pits
- 76 Transitional Areas
- 77 Mixed Barren Land

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

The land use/land cover data were used to aid a wide range of project goals that required information on the nature and extent of existing surface uses.

Mandates

(None)

DATA TYPE: Existing Navigation Facilities
MAP SCALE: 1:24,000
DATA SOURCE: TVA Program Data
RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Water Resources
Navigation Operations Section
Field Operations

GENERAL DESCRIPTION:

Existing barge terminals, safety harbors or landings, minor commercial barge landings, and dredging spoil disposal areas are shown on the data maps. Tennessee River mile (TRM) locations are given for each facility.

DATA CATEGORIES:

Map Symbol

1-#	Existing Barge Terminals Facilities used to load and/or unload commodities between barges and truck, rail, or plant. They are adjacent to the commercial navigation channel and close to the industrial plants served. They normally have direct highway access and may have rail connections. Presence of a barge terminal normally dictates an industrial designation for use of adjoining lands.
1-1	Hardin County Port Authority, 207.7H (Yellow Creek)
1-2	Ergon, Incorporated, TRM 215.1L (Yellow Creek)
1-3	Yellow Creek State Inland Port Authority, TRM 215.1L (Yellow Creek)
1-4	Yellow Creek Nuclear Plant, TRM 215.1L (Yellow Creek)
1-5	USS Agri-Chemicals, TRM 238.8L (Yellow Creek)
1-6	Colbert Steam Plant, TRM 245.3L
1-7	Georgia Power Company, TRM 247.3L
1-8	Murphy Oil Corporation, TRM 252.4L
1-9	Gulf Oil Corporation, TRM 253.4L
1-10	Jaffee Corporation, TRM 253.6L
1-11	Sheffield Municipal Terminal, TRM 253.9L
1-12	Lauderdale County Cooperative, TRM 256.6R

Map Symbol

- 1-13 Alabama State Docks, TRM 256.6R
- 1-14 L&N Railroad Co. Terminal, TRM 256.6R
- 1-15 Hassell Ready Mix Concrete, TRM 257.2R
- 1-16 Grays Concrete Products, TRM 257.9R

2-# Safety Harbors or Landings

Designated shoreline areas used by commercial tows to tie off during adverse weather conditions or equipment malfunctions. They are adjacent to the commercial navigation channel and have adequate year-round water depth to accommodate commercial vessels. The shoreline must be left in an undeveloped state so that there will be no conflicts with vessels using these areas.

- 2-1 TRM 209.5R
- 2-2 TRM 210.5L
- 2-3 TRM 212.0L
- 2-4 TRM 213.8L
- 2-5 TRM 215.1L
- 2-6 TRM 217.2L
- 2-7 TRM 217.5L
- 2-8 TRM 218.7L
- 2-9 TRM 221.8L
- 2-10 TRM 222.6L
- 2-11 TRM 224.8L
- 2-12 TRM 229.8L
- 2-13 TRM 232.8L
- 2-14 TRM 239.1L
- 2-15 TRM 252.3R

3-# Minor Commercial Barge Landings

Unprepared sites that can be used for the transfer of pulpwood, sand and gravel, and other natural resources between barges and trucks. They are accessible to the commercial navigation channel and have adequate water depth most of the time to accommodate towboats and barges. They should be located in the vicinity of the natural resource being handled. Since this type of use is intermittent and generally not a major activity,

Map Symbol

there will probably be no significant impacts on other uses of surrounding areas.

3-1	TRM 212.8R
3-2	TRM 215.1L (Yellow Creek)
3-3	TRM 215.1L (Yellow Creek)
3-4	TRM 215.1L (Yellow Creek)
3-5	TRM 217.2R
3-6	TRM 221.0R
3-7	TRM 225.0L (Bear Creek)
3-8	TRM 225.0L (Bear Creek)
3-9	TRM 227.1R
3-10	TRM 227.5R
3-11	TRM 233.5R
3-12	TRM 239.3L
3-13	TRM 246.8L

4-# Spoil Disposal Areas

Areas used by the Corps of Engineers to deposit excavated material from its channel maintenance dredging activities. They should be located close to projected dredging sites. They can be either deep-water, shallow water, or onshore depending on water quality and other concerns. Depending on the location, designated areas could eventually be developed into a multitude of uses.

4-1	TRM 215.1L (Yellow Creek)
4-2	TRM 215.1L (Yellow Creek)
4-3	TRM 252.7R

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (3) Encourage economic development in the Pickwick Reservoir area through industrial development, commercial recreation, and agricultural-dependent business.
- (3b) Develop and enhance navigation.

Mandates

- (1) Tennessee Valley Authority Act of 1933, as Amended

DATA TYPE: Existing/Planned Power Facilities

MAP SCALE: 1:24,000

DATA SOURCE: TVA Program Data

RESPONSIBLE ORGANIZATION: Office of Power

Management Services Staff

Division of Transmission Planning and Engineering

Transmission System Siting and Clearance Staff

GENERAL DESCRIPTION:

Existing and proposed TVA transmission lines are shown on the data maps including projected inservice dates (ISD). ISD's listed as unknown will probably be after 1994. Colbert Steam Plant and Yellow Creek Nuclear Plant Reservations are also shown.

DATA CATEGORIES:

Existing and Proposed Transmission Lines

<u>Map Symbol</u>	<u>Name and Vicinity Map No.</u>	<u>R.O.W. Width</u>
1	Pickwick-Savannah (East) LW-5385 Pickwick-Savannah (West) LW-3357	225'
2	Wilson-Pickwick #1 LW-307 Wilson-Pickwick #2 LW-1305	300'
3	Wilson-Pickwick #1 LW-307	150'
4	Wilson-Pickwick #2 LW-1305	150'
5	Pickwick-Memphis #2 LW-1441 Pickwick-Selmer LW-3884	200'
6	Pickwick-Burnsville LW-285 Pickwick-Corinth LW-3254 Pickwick-Memphis #1 LW-538 Pickwick-Jackson LW-445	300'
7	Pickwick-Jackson LW-445 Pickwick-Memphis #1 LW-538	300'
8	Pickwick-Corinth LW-3254	100'
9	Counce Substation	N/A
10	Wilson-Pickwick #1 LW-307 Yellow Creek-Jackson #2 (Future) ISD Unknown	287.5'

<u>Map Symbol</u>	<u>Name and Vicinity Map No.</u>	<u>R.O.W. Width</u>
11	Yellow Creek-Jackson #2 (Future) ISD Unknown	175'
12	Yellow Creek-Maury (Future) ISD 10-1-90	175'
13	Yellow Creek-Jackson #2 (Future) ISD Unknown Yellow Creek-Maury (Future) ISD 10-1-90	300'
14	Yellow Creek-Jackson #1 (Future) ISD 7-1-85	175'
15	Yellow Creek-Shelby #1 with Underbuild (Future) ISD 6-1-94	175'
16	Yellow Creek-Shelby #1 with Underbuild (Future) ISD 6-1-94	337.5'
17	Yellow Creek-Union (Future) ISD 7-1-84 Yellow Creek-Shelby #2 (Future) ISD Unknown Pickwick-Burnsville Tap to Yellow Creek Const. Sub. LW-285 Unidentified Line (Future) ISD Unknown	475'
18	Pickwick-Burnsville Tap to Yellow Creek Const. Sub. LW-285	75'
19	Pickwick-Burnsville LW-285	100'
20	Wilson-Pickwick #1 LW-307	150'
21	Margerum-Iuka LW-6927	125'
21A	Cherokee-Burnsville LW-5788	
22	Cherokee-Burnsville LW-5788	100'
22A	Cherokee-Margerum LW-6927	165'
23	Wilson-Pickwick #1 LW-307	150'
24	Cherokee Substation	N/A
25	Colbert-Pickwick #1 (South) Cherokee Substation Tap LW-4993	150'
25A	Colbert-Pickwick #1 (South) Cherokee Substation Tap LW-4993 Cherokee-Burnsville LW-5788	225'
26	Hobgood-Miss. State Line-Burnsville LW-3662	100'
27	Colbert-Columbus LW-4838 Colbert-Tupelo (South) LW-3843	250'

<u>Map Symbol</u>	<u>Name and Vicinity Map No.</u>	<u>R.O.W. Width</u>
28	Colbert-Reynolds #1 and #2 LW-3832 Colbert-Reynolds #3 LW-4389 Wilson Dam-West Point LW-2613 Clorine and Industrial South #1 and #2 (Not Built)	525'
29	Wilson-Pickwick #2 (North) LW-1305 Colbert-Mt. Pleasant LW-3827 Wilson-Pickwick #1 (South) LW-307 Wilson-Pickwick #2 (South) LW-1305	300'
30	Colbert-Reynolds #1 and #2 LW-3832	275'
31	Baker Lane Substation	N/A
32	Wilson Dam-Barton (DEENERGIZED) LW-3566	75'
33	Distributor Line	
34	Wilson-Pickwick #1 (DEENERGIZED SEGMENT) LW-307	150'
35	Wilson-Pickwick #2 LW-1305	150'
36	Distributor Line	

C Colbert Steam Plant Reservation

Y Yellow Creek Nuclear Plant Reservation

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (4) Economically provide an adequate and reliable supply of electricity in a way that is environmentally acceptable.
- (4a) Maintain flexibility to locate future transmission lines and energy facilities.
- (4b) Maintain vehicle access to power facilities.

Mandates

- (1) Tennessee Valley Authority Act of 1933, as Amended

DATA TYPE: Recreation Development
MAP SCALE: 1:24,000
DATA SOURCE: TVA Program Data
RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Land and Forest Resources
Recreation Resources Program

GENERAL DESCRIPTION:

Existing public parks, recreation areas, playground, access areas, wild and natural areas, commercial and private recreation developments, and scenic areas are designated.

DATA CATEGORIES:

Map Symbol

- 1.# Public Parks, Recreation Areas, Playgrounds, and Access Areas
 - National
 - 1.11 Natchez Trace Parkway
 - 1.111 Natchez Trace Parkway
 - 1.12 Natchez Trace Parkway - Lauderdale Park
 - 1.13 Natchez Trace Parkway - Colbert Ferry Park
 - State
 - 1.21 Pickwick Landing State Park and Marina
 - 1.22 J. P. Coleman State Park
 - 1.23 Bruton Branch Recreation Area
 - County
 - 1.31 Colbert County Park
 - 1.32 Lauderdale County Park
 - City and Local
 - 1.41 Waterloo City Park
 - 1.42 McFarland Park
 - 1.43 Florence Municipal Park
 - 1.44 Point Park
 - 1.45 Wildwood Park
 - TVA
 - 1.51 Pickwick Dam Reservation
 - 1.52 Second Creek

Map Symbol

- 1.53 Cane Creek Boat Ramp
- 1.54 Wilson Dam Reservation
- 1.55 Goat Island Recreation Area
- 1.56 Panther Creek Boat Ramp
- 2.# Wild and Natural Areas (TVA)
- 2.51 Old First Quarters Ravine Small Wild Area
- 2.52 Colliers Cave Small Wild Area
- 3.# Commercial Recreation Developments

Marinas

- 3.21 Greenwater Marina
- 3.22 Goat Island Marina

Docks

- 3.31 Eastport Dock
- 3.32 Aurora Springs Dock
- 3.33 Mill Creek Dock
- 3.34 Spring Valley Dock
- 3.35 Bear Creek Dock
- 3.36 Resort Associates Dock
- 3.37 Callens Dock
- 3.38 Bellis Dock
- 4.# Private Recreation Developments

Clubs, Lodges, Etc.

- 4.11 Florence Golf and Country Club
- 5.# Scenic Areas (TVA)
- 5.51 Coopers Falls Small Wild Area

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.
- (1i) Promote the identification, protection, and acquisition of significant natural and scenic features in cooperation with other agencies.
- (2) Provide a diversity of quality recreation opportunities on the reservoir and adjoining TVA land.

- (2a) Improve the quality and diversity of recreation facilities to meet recreation demands.
- (2b) Encourage the development of a road system compatible with access needs.
- (2d) Permit private noncommercial recreation development only when compatible with rights of the public.
- (2e) Maintain and improve the quality of wildlife and fishing recreational opportunities.
- (2f) Encourage and cooperate with other agencies to develop additional facilities to meet recreational demands (both public and commercial).
- (3) Encourage economic development in Pickwick Reservoir area through: (1) industrial development, (2) commercial recreation, and (3) agricultural-dependent business (includes farms).
- (6) Emphasize factors in reservoir land planning that have a positive influence on quality of life.
- (6b) Emphasize the protection of environmental quality and amenities (air, water, noise, and aesthetics) in the implementation of TVA programs on TVA lands and encourage these considerations in the development of adjoining lands.
- (6d) Recognize the importance of a diverse economic base in supplying job opportunities to provide a quality lifestyle.
- (8) Improve the mechanisms for interagency and public coordination concerning reservoir resource management and development.

Mandates

- (1) Land and Water Conservation Fund Act of 1964
- (2) Wild and Scenic Rivers Act of 1968

DATA TYPE: Visual Quality
MAP SCALE: 1:24,000
DATA SOURCE: TVA Program Data
RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Land and Forest Resources
Land Management Planning Section

GENERAL DESCRIPTION:

In recent years, public concern for the quality of the environment has led to a growing recognition of the visual landscape as a basic resource. Throughout all levels of government, visual concerns directly influence public policy. TVA's recognition of the visual environment's value and importance dates back to the agency's early years. In 1938, TVA published "The Scenic Resources of the Tennessee Valley: A Descriptive and Pictorial Inventory." In its introduction, the book states:

The region formed by the drainage basin of the Tennessee River has a natural endowment of great variety and richness; but among its many assets, none, perhaps, is more distinctive or potentially more valuable than the scenic quality of its mountains, streams, and forests. Scenery is as real and important a natural resource of the Tennessee Valley as are its soil, minerals, timber, or water power.

Commitments for the proper use and protection of scenic resources first stated in the book have now spread throughout TVA. Special provisions concerning the protection and sensitive development of the visual environment are frequently integral components in agency planning processes.

In this project visual quality considerations were handled through development of a Visual Management System. Consistent with TVA's commitment to the judicious management of the visual resource and the expressed goal of the Pickwick Reservoir Plan to protect the environmental quality and aesthetic amenity, the goal of the Visual Management System is:

To enable objective evaluation of the visual consequences resulting from a proposed development action and to base this evaluation upon a clearly defined set of criteria and assumptions regarding community values and methodological procedures.

The proposed system is intended to facilitate selection of development actions most positively affecting the reservoir's visual environment and, through their implementation, to conserve or enhance the reservoir's visual quality.

To accomplish this goal, the system is structured upon several fundamental characteristics. First, it is a dynamic rather than a static process. As change occurs in community values or in the landscape, the system allows its initial data and values to be updated in order to reflect these changes. This flexibility enables the system to remain valid for many years without requiring significant redevelopment.

Second, the Visual Management System is intended to be easily understood by the many participants in the reservoir planning process. While simplicity is important to encourage use, the need for meaningful output must also be met. System output is of an accuracy and resolution consistent with the many other planning considerations.

Finally, the system enables evaluation of the relative change in the visual environment resulting from a proposed development action. It does not evaluate the visual quality of the landscape either before or after development itself. Rather, it seeks to maximize selection of development alternatives that result in either no change, or a beneficial change in the reservoir's visual environment. Conversely, the system discourages selection of actions that result in detrimental changes in the visual environment.

The Visual Management System predicts the aesthetic response of local residents to the various landscapes surrounding the reservoir based upon a set of assumptions governing their aesthetic values. Whenever possible, these assumptions are based upon values expressed in the public meetings. Principal assumptions are set forth below;

other detailed aesthetic values used in the system are described in the Visual Management System documentation not presented in the Data Base appendix:

- A. Based upon results of the public meetings, it is assumed that natural wooded shoreline is the generally preferred view from the reservoir. Development actions that disrupt the natural shoreline are visually unacceptable.
- B. Similarly, lands surrounding the reservoir possess two dominant landscapes: (1) natural forests in hilly topography and (2) agriculture in gently rolling topography. It is assumed these landscapes are preferred and should remain dominant.
- C. However, actions creating increased visual diversity, are assumed to be desirable provided (1) perception of the dominant landscapes remains intact and (2) the type of development creating the diversity is visually acceptable.
- D. Further, it is assumed that as the number of viewers of a landscape increases, the visual significance of the landscape also increases.
- E. Finally, it is assumed that lands visible directly from the reservoir are of greater concern than lands not within the reservoir's viewshed.

DATA CATEGORIES:

Detailed data categories were derived using procedures described in the Visual Management System documentation. Due to their length, these procedures are not included in this appendix.

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed:

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.
- (6) Emphasize factors in reservoir land planning that have a positive influence on quality of life.
- (6a) Minimize change of wooded reservoir shoreline.
- (6b) Emphasize the protection of environmental quality and amenities (air, water, noise, and aesthetics) in the implementation of

TVA programs on TVA lands and encourage these considerations in the development of adjoining lands.

Mandates

(None)

DATA TYPE: Water Intake and Discharge Facilities

MAP SCALE: 1:24,000

DATA SOURCE: TVA Program Data

RESPONSIBLE ORGANIZATION: Office of Natural Resources

Division of Water Resources

Regional Water Management Program

GENERAL DESCRIPTION:

Municipal, industrial, and other domestic waste discharges and water supplies are shown.

DATA CATEGORIES:

1. Wastewater Discharges

<u>Map Symbol</u>	<u>Discharger Name</u> (Municipal)	<u>Location</u>
MW1	Muscle Shoals	Pond Creek mile 2.3
MW2	Sheffield	TRM 253.1
MW3	Florence	TRM 254.5
MW4	Tuscumbia	Spring Creek mile 2.3
MW5	Cherokee	TRM 238.0
	(Industrial)	
IW1	Diamond Shamrock	Pond Creek
IW2	Monarch Tile Mfg.	Trib. to Sweetwater Creek
IW3	TVA-Colbert Steam Plant	TRM 245.0
IW4	U.S. Steel Agrichemicals	TRM 237.9
IW5	National Fertilizer Development Center	Pond Creek 1.8
IW6	TVA-Colbert Steam Plant-Ash Pond	TRM 244.1
IW7	National Fertilizer Development Center	TRM 256.7
IW8	Tennessee Pulp and Paper	TRM 205.5
IW9	Stauffer Chemical	Chambers Creek mile 4.4

<u>Map Symbol</u>	<u>Discharger Name</u> (Domestic)	<u>Location</u>
DW1	Rockpile Fishing Area	TRM 258.3
DW2	Wilson Hydro Plant - TVA	TRM 259.1
DW3	Wilson Power Service Center	TRM 259.3
DW4	J. P. Coleman State Park	TRM 220.0
DW5	Yellow Creek Port	Yellow Creek mile 3.5
DW6	Resort Associates, Inc.	Yellow Creek mile 0.6
DW7	Pickwick Landing State Park	TRM 207.6
DW8	Pickwick Landing State Park	Robinson Creek mile 2.0

2. Water Supply Intakes

<u>Map Symbol</u>	<u>Intake Name</u> (Municipal)	<u>Location</u>
MI1	Sheffield	TRM 254.3
MI2	Cherokee	TRM 239.0
MI3	Waterloo	Well
MI4	Hardin County Board of Public Utilities	TRM 206.7
	(Industrial)	
II1	Colbert Steam Plant	TRM 245.0
II2	Tennessee Pulp and Paper	TRM 206.7
	(Domestic)	
DI1	Colbert Park	Well

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (3) Encourage economic development in Pickwick Reservoir area through: (1) industrial development, (2) commercial recreation, and (3) agricultural-dependent business (includes farms).

- (3a) Selectively recruit and promote economic development opportunities that are compatible with environmental quality.
- (3d) Promote development compatible with existing and proposed land uses and reservoir operations.
- (6) Emphasize factors in reservoir land planning that have a positive influence on quality of life.
- (6b) Emphasize the protection of environmental quality and amenities (air, water, noise, and aesthetics) in the implementation of TVA programs on TVA lands and encourage these considerations in the development of adjoining lands.

Mandates

- (1) Clean Water Act of 1977
- (2) Resource Conservation and Recovery Act of 1976

Existing Plans, Political Jurisdictions, and Landrights Data

DATA TYPE: Adjacent Land Ownership
MAP SCALE: 1:24,000
DATA SOURCE: TVA Program Data
RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Land and Forest Resources
Southern District

GENERAL DESCRIPTION:

Information concerning ownership of land adjacent to TVA reservoir land is shown, including land previously owned by TVA, private, industrial, and corporate land.

DATA CATEGORIES:

Map Symbol

- | | |
|-----|--|
| 1.# | Former TVA land in which some rights have been retained |
| 1.1 | Private |
| 1.2 | Federal |
| 1.3 | State |
| 1.4 | Industrial |
| 1.5 | County |
| 2. | Private (includes industrial options in the Bend of the River area) |
| 3. | Corporate |
| 4. | Municipal (includes former TVA land transferred to the city of Sheffield, Alabama) |

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

These data were used to aid goals that required information concerning the nature and extent of the ownership of land adjacent to TVA reservoir land.

Mandates

(None)

DATA TYPE: City Land Use Plans

MAP SCALE: 1:24,000

DATA SOURCE: TVA Program Data, Tuscumbia, Sheffield, and Florence,
Alabama, Land Use Plans.

RESPONSIBLE ORGANIZATION: Office of Economic and Community Development
Regional Planning Staff

GENERAL DESCRIPTION:

Land use plans for the cities of Tuscumbia, Sheffield, and Florence, Alabama, are shown on map Panel E. Land use plans delineate the proposed character of development by outlining the location, extent, and intensity of land uses. Land use plans provide a sound physical, economic, and social basis for future community development decisions and serve as a guide to more definitive legislative and administrative measures, such as zoning, subdivision regulation, and utility extension policies. While local land use plans reflect the values, attitudes, and characteristics of people and their economy and should provide a logical and efficient guide for future development, the value and effectiveness of plans are limited without local commitment to them and without the capability to implement them. Land use plans must be general and flexible in order to be adaptable to social, economic, and technological changes.

DATA CATEGORIES:

Map Symbol

R	Residential
C	Commercial
I	Industrial
O	Open/Park/Recreation
P	Public and Semipublic

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (3) Encourage economic development in Pickwick Reservoir area through: (1) industrial development, (2) commercial recreation, and (3) agricultural-dependent business (includes farms).

- (3c) Promote economic development that is consistent with community character and responsive to local community development needs.
- (3d) Promote development compatible with existing and proposed land uses and reservoir operations.
- (7) Develop a closer interface between area residents and TVA concerning reservoir management for Pickwick. Be sensitive to changing needs and emerging issues.
- (7b) Consider community needs in reservoir planning.

Mandates

(None)

DATA TYPE: County Land Use Plans

MAP SCALE: 1:150,000

DATA SOURCE: Northwest Alabama Council of Local Governments and
Hardin County Development Commission

RESPONSIBLE ORGANIZATION: Office of Economic and Community Development
Regional Planning Staff

GENERAL DESCRIPTION:

This map combines available information on existing land use plans for Hardin County, Tennessee, and for Lauderdale and Colbert Counties, Alabama. No data were available for Tishomingo County, Mississippi.

Land use plans delineate the proposed character of development by outlining the location, extent, and intensity of land uses. Land use plans provide a sound physical, economic, and social basis for future community development decisions and serve as a guide to more definitive legislative and administrative measures, such as zoning, subdivision regulation, and utility extension policies. While local land use plans reflect the values, attitudes, and characteristics of people and their economy and should provide a logical and efficient guide for future development, the value and effectiveness of plans are limited without local commitment to them and without the capability to implement them. Land use plans must be general and flexible in order to be adaptable to social, economic, and technological change.

DATA CATEGORIES:

Map Symbol

	Growth Areas - Urban/Residential
	Rural Residential
	Farm/Agricultural
	Commercial
	Industrial
	Forest
	Designated Open
	Public/Semipublic
	Parks and Recreation

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (3) Encourage economic development in Pickwick Reservoir area through: (1) industrial development, (2) commercial recreation, and (3) agricultural-dependent business (includes farms).
- (3c) Promote economic development that is consistent with community character and responsive to local community development needs.
- (3d) Promote development compatible with existing and proposed land uses and reservoir operations.
- (7) Develop a closer interface between area residents and TVA concerning reservoir management for Pickwick. Be sensitive to changing needs and emerging issues.
- (7b) Consider community needs in reservoir planning.

Mandates

(None)

DATA TYPE: TVA Landrights and Existing Licensed/Managed Areas
MAP SCALE: 1:24,000
DATA SOURCE: TVA Program Data
RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Land and Forest Resources
Southern District

GENERAL DESCRIPTION:

Information shown includes TVA land and retained landrights, land committed by TVA to particular uses, agricultural licenses, and forest management areas.

DATA CATEGORIES:

Map Symbol

- | | |
|-----|---|
| 1.# | Retained Land (Not Including Acquired Flood Easements) |
| 2.1 | Pine Plantations in Need of Thinning |
| 2.2 | Active Pulpwood Sales - A Test Thinning of a Young Pine Plantation |
| 2.3 | L&FR Hardwood Seed Source Research Area
These areas were a cooperative venture between the previous Division of Forestry Development and the Division of Reservoir Properties. Seedlings were grown from different seed sources and outplanted in these two areas to compare their growth rates to native stock. These areas are now receiving only minimum maintenance. |
| 2.4 | Timber and Wildlife Management Area |
| 2.5 | Multiple-Use Timber Management Area |
| 3.# | Agricultural License |
| 5.1 | Dam Reservation |
| 5.2 | TVA Recreation Development |
| 5.3 | Muscle Shoals Reservation |
| 6.# | Leased Land |
| 7.1 | Permanent Easement for Telephone Line |
| 7.2 | Permanent Easement for Radio Tower |
| 7.3 | Permanent Easement for Sewage Plant |

Map Symbol

7.4	Permanent Easement for Barge Terminal
7.5	Permanent Easement for Pumping Station
7.6	Permanent Easement for Cemetery
7.7	Permanent Easement for Water Plant
7.8	Permanent Easement for Recreation
7.9	Permanent Easement for Industry
	(Easements for Roads, Railroads, Pipelines and Sewers Not Included)

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

Information concerning the nature and extent for TVA land and landrights on Pickwick Reservoir was the foundation of the entire plan. As such it was directly or indirectly used to address most project goals.

Mandates

(1) Tennessee Valley Authority Act of 1933, as Amended

Land Use Capability Data

DATA TYPE: Agricultural Capability

MAP SCALE: 1:150,000

DATA SOURCE: Soils and Fertilizer Research Branch, National Fertilizer
Development Center, and USDA Soils Conservation Service

RESPONSIBLE ORGANIZATION: Office of Agricultural and Chemical Development
Division of Agricultural Development
Agricultural Resource Development Branch

GENERAL DESCRIPTION:

Areas 1 and 2 are designated prime or important agricultural lands by State and Federal agencies and should be retained for agricultural production or for uses that do not destroy the agricultural producing capacity of the land. These lands are needed for food production, for generation of farm and nonfarm income in the region, and to enhance our foreign exchange earnings. They will be needed even more for future survival as the population grows and food supplies become more critical. A tremendous supply of other land suitable for nonagricultural uses is available in the Valley and in Pickwick Reservoir.

Area 1-B is presently used, designated, or planned for the production of water chestnuts in municipal sewer supernatant. This is a current project between TVA and the city of Florence. This area should be maintained as it is scaled up from research to demonstration to operating project. No other area can be substituted for this area.

Proposals for using Area 1 lands for wildlife, archaeological, historical, and agricultural district purposes can be compatible--at least for the next several years--if the productive capacity of the prime agricultural lands is preserved. The area should be designated agricultural as a primary use, with possible multiple uses of the prime land and compatible uses of nonprime lands within the area.

DATA CATEGORIES:

Map Symbol

- | | |
|-----|--|
| 1 | Area 1 - Prime and Important Agricultural Land |
| 2 | Area 2 - Prime and Important Agricultural Land |
| 1-B | Agricultural Research Area |

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (3) Encourage economic development in Pickwick Reservoir area through:
 - (1) industrial development, (2) commercial recreation, and
 - (3) agricultural-dependent business (includes farms).
- (5) Encourage the preservation of the area's agricultural resources.
- (5a) Protect TVA-owned important farmland from irreversible uses.
- (5b) Limit transfer of TVA land for access to reservoir when important backlying farmland will be adversely affected.
- (5c) Promote good farm management practices on adjoining land to encourage continued use and viability of farms and farm-dependent business.
- (5d) Increase production on TVA lands in agricultural use.
- (5e) Use TVA agricultural land to recycle urban waste and encourage the same use on adjoining agricultural lands.
- (6) Emphasize factors in reservoir land planning that have a positive influence on quality of life.
- (6c) Recognize and maintain the agricultural base and community character as an important component in perceptions of quality of life and aesthetic beauty of area.
- (6d) Recognize the importance of a diverse economic base in supplying job opportunities to provide a quality lifestyle.

Mandates

- (1) National Environmental Policy Act of 1969 (NEPA)
- (2) Executive Memorandum - August 11, 1980

DATA TYPE: Environmental/Energy Education Area Potential
MAP SCALE: 1:24,000
DATA SOURCE: TVA Program Data
RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Land and Forest Resources
Environmental/Energy Education Program

GENERAL DESCRIPTION:

The development of interpretive activities at the three sites identified on Pickwick Reservoir would be conducted in a coordinated manner. The Environmental/Energy Education Program would then serve to facilitate visitation within the Valley.

DATA CATEGORIES:

Map Symbol

1. Pickwick Dam Reservation

Selection Criteria. This site serves as a major orientation point for the western part of the reservoir and may be considered an "entrance" to the area. The site is accessible, with existing support facilities such as overnight lodging, restrooms and picnic facilities. Visitation patterns already exist with Pickwick Dam, Pickwick Dam Reservation Public Use Area, and Pickwick Landing Dam State Park. The site has potential for use by the Center for Environmental and Energy Education, Middle Tennessee State University. The site has been designated as a wildlife observation area by the TVA Wildlife Resources Program. The site has potential for development of interpretive activities with existing diversity of land base and facilities.

Potential Development. The site would be developed with interpretive trails and orientation points. Interpretation of resource areas such as wildlife management and forestry and fisheries management would depend upon interaction with TVA program areas. Energy education would include interpretive messages through exhibits, demonstrations, and displays.

2. Goat Island

Selection Criteria. The use of this site is dependent upon its proposed development as a new area under the TVA Recreation Policy. With recreation improvements such as a caretaker,

the site would receive additional security, visitation, and support facilities. There is potential for use of this site by the Center for Environmental and Energy Education, North Mississippi Environmental Education Consortium. The site is a "link" between the Pickwick Dam Reservation site and Muscle Shoals Reservation site.

Potential Development. The site would be developed with interpretive trails, orientation point, and public programs. Public programs would be sponsored in cooperation with the TVA Recreation Resources Program.

3. Muscle Shoals Reservation

Selection Criteria. This site is a major orientation point on the eastern part of the reservoir. There were existing interpretive trails and demonstrations established in 1980. Interpretive potential has been identified in the existing resources relating to agriculture, wildlife management, and cultural resources.

Potential Development. These facilities would be expanded upon with outside, covered exhibit areas. The exhibits would outline the significance of historical, agricultural, and energy resources within the immediate area.

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.
- (1a) Increase public awareness of natural resources.
- (1h) Cooperate in the development of cultural/natural resources and education facilities and areas.
- (6) Emphasize factors in reservoir land planning that have a positive influence on quality of life.
- (6b) Emphasize the protection of environmental quality and amenities (air, water, noise, and aesthetics) in the implementation of TVA programs on TVA lands and encourage these considerations in the development of adjoining lands.

- (7) Develop a closer interface between area residents and TVA concerning reservoir management for Pickwick. Be sensitive to changing needs and emerging issues.
- (7a) Increase public participation by improving information-gathering and delivery systems and improve representation by involving a cross section of the public.

Mandates

(None)

DATA TYPE: Forest Industry Capability
MAP SCALE: 1:24,000
DATA SOURCE: TVA Program Data
RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Land and Forest Resources
Forest Resources Development Program

GENERAL DESCRIPTION:

Data for the Pickwick Reservoir area concentrate on forest products industry needs for waterfront sites. Waterfront site requirements will continue to be most stringent for the pulp and paper and the wet-process board sectors of the forest products industry. Sufficient acreage is available in existing industrial parks and undeveloped offriver sites to accommodate growth likely to occur in other forest industry sectors in the four-county planning area in the next 10 years.

Operations in these sectors (sawmills, furniture plants, pallet mills, etc.) are not dependent upon riverfront locations for barge transportation or process water. (Existing industrial parks are shown on the reference maps submitted by the Office of Economic and Community Development, Division of Commerce, Technical Services Branch.)

One of the most critical resource management needs facing nonindustrial private landowners in the Tennessee Valley in the 1980's is the need for markets for presently unmarketable hardwoods. In the Tennessee Valley, hardwood net growth exceeds actual harvest by a ratio of four to one. As a result of demand remaining relatively weak against existing supply, hardwood pulpwood prices have remained discouragingly low; mixed hardwood pulpwood stumpage prices in north Alabama and central Tennessee average less than \$3 per cord. Faced with this poor demand, private landowners have severely limited prospects of deriving justifiable returns on investments in timber management, and as a result, the Valley's hardwood forests continue to produce below their full potential.

Establishment of a hardwood-using pulpmill or wet-process board mill would provide small woodlot owners with a badly needed market. At present there are no actual prospects for a wet-process board mill on Pickwick.

The prospect of Union Camp's construction of a pulp mill at Cherokee, Alabama, is exciting because it would provide such a market. Two-thirds of the Union Camp mill's wood demand is expected to be hardwood. At the proposed starting output of 600 tons per day, the mill would require 350,000 cords of pulpwood each year. Purchased on the open market at present prices, this would amount to over \$1 million in annual payments to landowners. Mill expansion is expected to result in an output volume of 1,800 tons per day. Payment to landowners would then conservatively total over \$3 million each year. Prices for pine pulpwood are much higher.

The Pickwick Reservoir is an excellent location for a mill with a 35 percent pine and 65 percent hardwood requirement. Pickwick borders the southern limit of the southern hardwood forest, which extends from north central Mississippi through northern Alabama and into eastern Tennessee; it is within procurement range of the southeastern pine forests, the northern limit of which extends through central Mississippi, central Alabama, and central Georgia.

To ensure that wood can be delivered in sufficient quantities to keep a mill running, pulp and paper companies locate their mills on sites served by highway, rail, and water transportation. Barge transportation is essential to the pulp and paper industry to ensure tolerable rail rates and is expected to become even more important in the next decade.

DATA CATEGORIES:

Map Symbol



Probable "Large" Forest Products Industry Development Sites
Lands suitable for location of a pulp and paper mill or a wet-process board mill already under some form of forest products industry tenure. They are relatively large areas of level land which simultaneously adjoin navigable rivers, commercial highways, and railroads and which have been purchased, leased, or optioned by a forest products industry firm.



Presently Feasible "Large" Forest Products Industry Sites
Lands suitable for location of a pulp and paper mill or a

wet-process board mill. They are relatively large areas of level land simultaneously adjoining navigable rivers, commercial highways, and railroads.



Potential "Large" Forest Products Industry Sites

Lands which, at present, lack adequate railroad service but are otherwise suitable for a pulp and paper mill or a wet-process board mill. They are relatively large areas of level land simultaneously adjoining navigable rivers and heavy-duty roads for which preliminary railroad construction studies have been completed.



Existing Wood Landings

Wood landings with wood-handling facilities intact. They are under forest industry ownership, with scales and scalehouse already installed.



Presently Feasible Wood Landings

Landings for which wood landing suitability information has been sent to forest products industry. They are "prepared" landings in relatively remote areas with developed or improvable roads but presently lacking wood handling facilities.

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (3) Encourage economic development in Pickwick Reservoir are through:
 - (1) industrial development, (2) commercial recreation, and
 - (3) agricultural-dependent business (includes farms).
- (3d) Promote development compatible with existing and proposed land uses, and reservoir operations.
- (6d) Recognize the importance of a diverse economic base in supplying job opportunities to provide a quality lifestyle.

Mandates

- (1) Tennessee Valley Authority Act of 1933, as Amended

DATA TYPE: Forest Management Capability

DATA SOURCE: TVA Program Data

MAP SCALE: 1:24,000

RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Land and Forest Resources
Forest Resources Development Program

GENERAL DESCRIPTION:

The data maps indicate areas where emphasis on forestry would be of greatest benefit, as a single use or as a shared use.

DATA CATEGORIES:

Map Symbol

A1. Research Areas

Already established forestry research areas. Sizable investment has been made, and future payoff is high.

A2. WRAP[®] Testing

This long-range multiple-use resource management procedure is being developed to use and apply on private forest properties. About 600 acres of TVA forest lands are needed to test and demonstrate the utility of the program and determine its strengths and weaknesses. Harvesting schedules for three WRAP[®] objectives (wildlife, timber production, and unimproved recreation) will be tested on about equal areas of 200 acres. In this respect, this is not a single-use forestry allocation, but it is one in which the WRAP[®] recommendations would be followed.

Criteria for Area Selection: Variety of forest stand conditions (land cover), forest areas of 150-250 acres in size, major restrictions on harvesting operations not expected (topography), minimum tenure in excess of 10 years, and the individual areas suitable for the applicable WRAP[®] management objective.

A3. Firewood Plantings

A continuing increase in public demand for firewood is expected. There is need to plant small areas to supplement

TVA supply and serve as a demonstrational tool. About 50 acres is required for an annual supply of about 75-100 cords.

Criteria for Area Selection: Open land, highly productive (land type), harvesting accessibility, long-term tenure.

B1. High Forestry Suitability

Highly suitable for certain forestry uses because of existing stand conditions, site, and other factors.

- a. Stand conditions--Because of certain forest vegetation conditions or past improvement practices, these areas are highly suited for particular uses.
 - (1) Pine plantations. Large forestry investment already made and significant wildlife improvement possible. Criteria: land cover maps, expert opinion.
 - (2) Large sawtimber stand size. Demonstration of several regeneration methods. Criteria: land cover, expert opinion, accessibility, absence of sensitive site conditions (topography).
 - (3) Firewood thinning. To provide a public firewood supply and serve as demonstrations for private firewood operations. Criteria: land cover, expert opinion, accessibility.
 - (4) Substantial forestry investment already made. Criteria: land cover, expert opinion.
- b. Area suitabilities--Areas highly suitable for forestry as one of several uses because of satisfactory combinations of forest land area, site quality (land type), and lack of site factors limiting forestry operations (topography).

B2. Medium Suitability

- a. Stand conditions--Considerably less suitable than above but adequate.
- b. Area suitabilities--A less desirable combination of factors.

B3. Low Suitability

- a. Stand conditions--Limited use.
- b. Area suitabilities--Poor combination of factors.

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.
- (1d) Promote and implement watershed conservation practices.
- (1e) Use appropriate scientific forest management and utilization practices as part of an effort to produce the best combination of forest resources benefits from TVA lands.
- (1f) Promote good forest management on adjoining land.

Mandates

(None)

DATA TYPE: Potential Energy and Industrial Areas
MAP SCALE: 1:24,000
DATA SOURCE: TVA Program Data
RESPONSIBLE ORGANIZATION: Office of Power
Management Services Staff

GENERAL DESCRIPTION:

Potential industrial and energy facility areas have been identified based on preliminary examination of the Pickwick Reservoir area. This preliminary examination took into consideration proximity to highway, rail, and barge access; level topography; and in some cases confidential information from industry representatives.

Industrial development potential has also been identified through communications with industry officials who are considering locating in the area. Often they come to POWER to ascertain the availability of a reliable electric supply and indicate potential locations being considered for development. Through working directly with the industries and with other TVA offices, several areas have been identified that have development potential.

Preliminary energy facility site studies have also been made in the Pickwick area. These studies do not begin with identification of specific site boundaries but are done on a general basis for large areas. The large areas that are identified are then screened at some later time in the planning process. For example, three areas near Pickwick Reservoir have been considered fairly recently for potential central station cogeneration development. These areas include "Bend of the River," an area south of Yellow Creek Nuclear Plant, and an area west of Colbert Steam Plant.

DATA CATEGORIES:

Map Symbol



Potential Energy and Industrial Area



Potential Industrial Area

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

(3) Encourage economic development in Pickwick Reservoir area through:

- (1) industrial development, (2) commercial recreation, and
(3) agricultural-dependent business (includes farms).
- (3c) Promote economic development that is consistent with community
character and responsive to local community development needs.
- (3d) Promote development compatible with existing and proposed land
uses and reservoir operations.
- (4) Economically provide an adequate and reliable supply of electricity
in a way that is environmentally acceptable.
- (4a) Maintain flexibility to locate future transmission lines and energy
facilities.

Mandates

- (1) Tennessee Valley Authority Act of 1933, as Amended

DATA TYPE: Potential Industrial/Navigation Sites
MAP SCALE: 1:24,000
DATA SOURCE: TVA Program Data
RESPONSIBLE ORGANIZATION: Office of Economic and Community Development
Division of Commerce
Technical Services Branch
and
Office of Natural Resources
Division of Water Resources
Navigation Operations Section
Field Operations

GENERAL DESCRIPTION:

The completion of the Tennessee River navigation channel created a valuable tool for use in economic development of the Tennessee Valley. The importance of this resource is illustrated by the fact that since the navigation channel became available in 1945, private industry has invested about \$3.4 billion in Tennessee River waterfront plants, terminals, and distribution facilities. About 42 percent of this investment has occurred in the past 10 years, indicating a continuing acceleration of industrial progress. Waterfront industry directly provides jobs for more than 45,000 area residents. An untold number of additional jobs are provided in related manufacturing and service both along and off the waterfront.

The development of industry along the waterfront has been characterized by the emergence of several industrial centers. Phenomenal growth has occurred at these centers, many of which have developed in rural areas near small towns where industries were previously few or nonexistent. For example, near the small crossroads town of Calvert City, Kentucky, a large chemical and ferroalloys complex has developed; at New Johnsonville, Tennessee, a regional growth center is developing around the location of aluminum, chemical, and paper firms there; near Pickwick Dam at Counce, Tennessee, three major firms have located plants. Similarly industrial centers have developed along the waterway at Muscle Shoals, Courtland, Decatur, Guntersville, and the Scottsboro-Stevenson area in north Alabama, and at Clinton and the Charleston-Calhoun area in Tennessee.

The common link between these areas is the availability of navigation in combination with other important factors, such as rail and highway transportation, flood-free plant sites, and a dependable supply of process and cooling water. These factors have also stimulated riverfront development at Chattanooga, Tennessee, which has long been a regional industrial center.

The very presence of a navigation waterway does not in itself account for the industrial growth that has occurred in the Tennessee Valley. As previously mentioned, many other factors are involved. However, a major key to industrial development in the Tennessee Valley has been the availability of all three forms of surface transport at the same location. The convergence of rail, road, and water transport at a developable land base will stimulate industrial growth.

There is a limited number of developable sites left along the entire Tennessee River where the convergence of road, rail, and water transport can readily occur, and these sites are considered prime. For this reason, secondary sites have become important, and it is necessary to identify and protect both prime and secondary sites for now and the future. Upon completion of the Tennessee-Tombigbee Waterway, Pickwick Reservoir will become a junction of two waterways, making sites on and near Pickwick very strategic. Potential navigation and barge fleeting areas are also identified, referenced to Tennessee River mile (TRM).

DATA CATEGORIES:

Map Symbol



Existing Industry



Potential Industrial Sites



Sites Owned by Industry



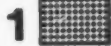
Sites Optioned by Industry



Sites Owned for Industrial Development



Potential Rail Right of Way



Potential Barge Terminal Sites

Proposed facilities to load and/or unload commodities between barges and truck, rail, or plant. These sites are located adjacent to the commercial navigation channel and identified potential industrial areas and park that would be served. These sites would serve projected industries in the "Bend of the River" industrial area.

TRM 237.8R

TRM 243.7R

TRM 248.0R



Potential Barge Fleeting Areas

Areas that would have mooring facilities (cables, buoys, and/or cells) to assist the towing industry in switching barges between tows and/or barge terminals. They are located at the junction of two waterways, in close proximity to a large number of barge terminals, or near a navigation lock. They would be established along shorelines having adequate depth for year-round operation and minimal interference with through navigation and recreational boating. Shoreline areas affected would have to be undeveloped. One site is needed immediately upstream from Pickwick lock to assist tows transiting the lock. A second would be located near the northern terminus of the Tennessee-Tombigbee Waterway to assist in the transfer of barges between Tennessee River towboats and smaller towboats that would serve the Tennessee-Tombigbee Waterway, and a third site is needed in the upper portion of the reservoir to serve the Florence and Sheffield barge terminals.

TRM 207.3R-207.9R

TRM 213.0R-215.0R

TRM 253.0R-255.0R

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (3) Encourage economic development in Pickwick Reservoir area through:
 - (1) industrial development, (2) commercial recreation, and
 - (3) agricultural-dependent business (includes farms).
- (3a) Selectively recruit and promote economic development opportunities that are compatible with environmental quality.
- (3b) Develop and enhance navigation.
- (3c) Promote economic development that is consistent with community character and responsive to local community development needs.
- (3d) Promote development compatible with existing and proposed land uses and reservoir operations.
- (6) Emphasize factors in reservoir land planning that have a positive influence on quality of life.
- (6d) Recognize the importance of a diverse economic base in supplying job opportunities to provide a quality lifestyle.

Mandates

- (1) Tennessee Valley Authority Act of 1933, as Amended

DATA TYPE: Recreation and Natural Areas Capability
MAP SCALE: 1:24,000
DATA SOURCE: TVA Natural Heritage Project and Mississippi State Heritage
Program Data
RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Land and Forest Resources
Recreation Resources Program

GENERAL DESCRIPTION:

The data maps indicate areas proposed for recreation development based on location, site characteristics, and demand. In addition, two areas are proposed for designation as natural areas: (1) Colliers Cave/Key Cave Critical Habitat Area and (2) Coopers Falls Critical Habitat Area.

The limestone bluffs on the north shore of the reservoir along river mile 249-253 contain nine known caves and probably others yet to be mapped. Two of these caves, Key and Colliers, provide habitat for species that have been recognized by the U.S. Fish and Wildlife Service as threatened or endangered.

Key Cave is one of the most biologically significant caves in Alabama. It constitutes the only known occurrence of the Alabama cave fish (Speoplatyhinus poulsoni), which has been listed as a threatened species by the U.S. Fish and Wildlife Service, as well as containing a summer maternity colony for the gray bat (Myotis grisescens), which has been listed as an endangered species by the U.S. and Wildlife Service. Two other important species that are listed as threatened by the State of Alabama are also found here, Cambarus jonesi and Procambarus pecki, both troglobitic cray-fish.

Colliers Cave provided habitat for a summer maternity colony of gray bat until human disturbance drove the bats from the cave in the late 1960's. Protection of the cave will allow the bats to reestablish there and thus rebuild the population from its present remnant colony.

Designation of the entire bluff area is essential for the adequate protection of these important habitats.

The Mississippi State Heritage Program has identified the Coopers Falls bluff area along river mile 219.5 as critical habitat for more than 30 plant species which are rare in that State and for one species,

Neviusia (Neviusia alabamensis), which was included by the Smithsonian Institution on its Rare Plants List. The habitat represented here is very rare in Mississippi. Thus protecting it is an important step in preserving examples of the natural diversity of the State. Preservation of the site is also important in protecting the scenic beauty of the area surrounding Coopers Falls and J. P. Coleman State Park and for its use as wintering habitat for the southern bald eagle.

The placement of a buried intake pipe for Yellow Creek Nuclear Plant through one edge of the proposed area will not affect its overall character because it will partially revegetate with local species.

DATA CATEGORIES:

Map Symbol

- | | |
|------|--|
| 1 | Campground/Day Use Area |
| 2 | Campground |
| 3 | Day-Use Area |
| 4-6 | Boat Ramp |
| 7 | Campground |
| NA-1 | Colliers Cave/Key Cave Critical Habitat Area |
| NA-2 | Coopers Falls Critical Habitat Area |

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.
- (1i) Promote the identification, protection, and acquisition of significant natural and scenic features in cooperation with other agencies.
- (2) Provide a diversity of quality recreation opportunities on the reservoir and adjoining TVA land.
- (2a) Improve the quality and diversity of recreation facilities to meet recreation demands.
- (2b) Encourage the development of a road system compatible with access needs.

- (2c) Maintain areas of shoreline in an undeveloped, natural state.
- (2e) Maintain and improve the quality of wildlife and fishing recreational opportunities.
- (2f) Encourage and cooperate with other agencies to develop additional facilities to meet recreational demands (both public and commercial).
- (6) Emphasize factors in reservoir land planning that have a positive influence on quality of life.
- (6b) Minimize change of wooded reservoir shoreline. Emphasize the protection of environmental quality and amenities (air, water, noise, and aesthetics) in the implementation of TVA programs on TVA lands and encourage these considerations in the development of adjoining lands.

Mandates

- (1) National Environmental Policy Act of 1969 (NEPA)
- (2) Endangered Species Act of 1973, as Amended

DATA TYPE: Upland Wildlife Development Capability
MAP SCALE: 1:24,000
DATA SOURCE: TVA Program, Tennessee Wildlife Resources Agency, and Alabama
Game and Fish Commission Data
RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Land and Forest Resources
Wildlife Resources Development Program

GENERAL DESCRIPTION:

Upland wildlife development capability categories were developed based on criteria including public access and demand, existing management, habitat quality, and level of human intrusion.

DATA CATEGORIES:

Map Symbol



Exceptional

Open and Available to All the Public/Public Use Allowed

Increased human populations, higher pay, shorter work periods, etc., have greatly increased the demand for those seeking outdoor, wildlife-related recreation. However, the general public is excluded from a vast majority of Alabama lands due to posting, urbanization, expansion of private hunting clubs, etc. The average person must depend on public wildlife areas to satisfy wildlife recreational desires.

Under an Active Wildlife Management Program for a Minimum of 10 Years

The State Game and Fish Division has developed/managed some upland sites for 20 or more years. More than \$800,000 has been expended for big game restoration, public use facilities, hunt management, road and trail access, maps, permits, enforcement, food plots, buildings, signing, and tree/shrub planting on these select areas. Additionally 519 man-days have been allocated to habitat/hunt management activities each year on these wildlife management sites. Also, more than 15,800 acres of "adjacent" privately owned lands have been leased by the State as public use areas to expand wildlife attributes around the "key" TVA-permitted lands.

Possesses a Significant Habitat Base That
Can Support Harvestable Big Game Populations
and/or Contains Habitat Diversity and Acreage
Needed To Produce Sustained Annual Harvests of
Small Game Species

Big game populations require 15,000 acres or more to enable management for hunting recreation within north Alabama upland forest types. Best sites are characterized by forests with a large proportion of hardwood mast trees, food-producing shrubs, 10-20 percent open areas, abundant winter cover, spring production sites, and numerous all-weather streams scattered throughout. The small game species rely more on the mix and juxtaposition of plant types, intermingling of open fields and forest, and carrying capacity features afforded by agricultural activities. Special welfare, territoriality, and reproduction needs must also be furnished within home range limitations.

Well Located To Attract Public Use and/or Has
High Current Demand for Wildlife Recreational Use

More than one million people live within a 75-mile radius of the western and eastern boundaries of Pickwick Reservoir. Current wildlife-related uses (birding, wildlife observation, nature study, hunting, hiking, fishing, etc.) already exceed 75,000 man-days annually at the two designated wildlife management areas (WMA's). Public demand for wildlife-related activities at the Seven Mile Island WMA may be approaching carrying capacity limits. The Lauderdale WMA ranks high in hunter and recreational use.

Relatively Undeveloped With Respect to Human
and Urban Facilities and Has High Aesthetic Natural
Resource Attributes

These possess numerous natural functioning and natural appearing environs, display rugged physical and/or isolation-solitude characteristics, and still enable a quasi-pristine experience to be obtained.

May Have Unique Habitat Types or Support Wildlife
Species That Are Rare or of Special Concern

Small wild areas are of concern as well as habitats that could support such special species as the bobcat, cougar, and red-cockaded woodpecker.



Good

Public Availability Can Be Obtained Via Lease
Negotiations or Land Purchases

Lease negotiations are more assured from large, landowning entities such as paper companies, extensive family holdings, or governmental lands. Also, recreational lease requests by State/Federal agencies are not an uncommon practice when directed at forest corporations, county forests, State parks, and private estates.

Significant Habitat Base for Big Game and/or Diversity and
Acreage for Small Game

A Good ranking could be applied when only 6,000-8,000 acres is available; however, big game populations would be limited to small deer cohorts, and associated recreational use would have to be limited via applying user quotas or restricting the number of user days. Some small game species and many nongame species would not necessarily require such an expanse of habitat; however, several hundred acres would be needed if hunting were an identified goal.

Located To Attract Public Use and/or Has Moderate
to High Current Demand for Wildlife-Rated Recreation

These Good lands are located within 75 miles of 500,000 people; however, in most cases use is moderate due to exclusion of the general public on private lands. One notable exception is the expanse of forest lands adjacent to and west of the Lauderdale WMA. These Tennessee sites (public lands and forest corporation lands) support a high density of wildlife-related use.

Human Populations and Urban Characteristics

Scarce--Has Open Green Space Attributes

These possess diversity and quality of natural systems that allow an outdoor experience for those wanting a change of

scene and pace; a feeling of isolation; a place to observe nature; or a retreat to hunt, fish, and hike in natural settings.



Suitable

Public Availability Can Be Obtained Via Lease

Negotiations or Land Purchases

The probability of lease or purchase is lower than the Good capability due to current high dollar value of the land and existing uses.

Significant Habitat Base and Diversity for Small Game

In most cases the "space" requirements are less, and small game/nongame species are the featured management objectives.

Located To Attract Public Use and/or Has Moderate to High Current Demand For Wildlife-Rated Recreation

(This category has the same criteria as Good.)

Has Open Green Space Attributes

The intrusion of man is evident, but an outdoor experience in natural surroundings is obtainable.

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.
- (1g) Protect and enhance the important fisheries and wildlife resource habitats in and on TVA waters and lands.
- (2) Provide a diversity of quality recreation opportunities on the reservoir and adjoining TVA land.
- (2e) Maintain and improve the quality of wildlife and fishing recreational opportunities.
- (6) Emphasize factors in reservoir land planning that have a positive influence on quality of life.
- (6b) Emphasize the protection of environmental quality and amenities (air, water, noise, and aesthetics) in the implementation of TVA programs on TVA lands and encourage these considerations in the development of adjoining lands.

- (8) Improve the mechanisms for interagency and public coordination concerning reservoir resource management and development.

Mandate

- (1) National Environmental Policy Act of 1969 (NEPA)

DATA TYPE: Waterfowl Development Capability
MAP SCALE: 1:24,000
DATA SOURCE: TVA Program, Tennessee Wildlife Resources Agency, and Alabama
Game and Fish Commission Data
RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Land and Forest Resources
Wildlife Resources Development Program

GENERAL DESCRIPTION:

Waterfowl development capability categories were developed based on criteria including habitat quality, management level, public access, human disturbance, and attractiveness to migrant species.

DATA CATEGORIES:

Map Symbol



Very Good

Contains Attractive Resting/Feeding Areas,
Under a State/TVA Management Program, and Has
Prime Production Habitat

Dabbling ducks require shallow water, aquatic plants, flooded forest, and a mixture of open and vegetated aquatic lands--most diving ducks prefer more open water areas and aquatic invertebrates or floating/submerged plants. Production areas relate largely to wood duck nesting/brooding requirements (bottom land hardwood forest, upland forest with older trees near water, vegetated shorelines, islands, sloughs, and beaver ponds for brooding).

Human Disturbance and Other Nuisance Factors

Not a Problem

Isolation qualities exist to allow loafing and roosting of waterfowl (ducks and geese). Since most species are present in the winter period, other aquatic recreational pursuits (boating, etc.) normally do not generate concern.

Located To Attract Migrant Species

Mississippi flyway populations are attracted to Pickwick Reservoir, and 3,000-6,000 winter birds utilize key areas within reservoir boundaries. Harvestable populations are present.

Available for Public Use

Waterfowl viewing/hunting is available to the general public, posting is not a problem, and access poses little concern.



Good

Contains Attractive Resting/Feeding Areas, May

Not Be Under Management Program, May/May Not Have

Prime Production Habitat

These sites may not have characteristics beneficial to dabbling and diving ducks--only one group could be featured. Any area that attracts geese or has numerous beaver ponds also falls within the Good capability regime. Human disturbance and nuisance factors are minimum or regulatable and located to attract migrant species (as in Very Good). These sites are available for public use, however, access may require permission to cross private lands.



Suitable

Usually smaller land areas (back of coves, etc.) that can support smaller densities of migrant and resident waterfowl. Human disturbance factors minimum or regulatable. These may not have harvestable numbers--could be more attractive as overwintering sites. These sites are available for public use. However, access may require permission to cross private lands.

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.
- (1g) Protect and enhance the important fisheries and wildlife resource habitats in and on TVA waters and lands.
- (2) Provide a diversity of quality recreation opportunities on the reservoir and adjoining TVA land.
- (2e) Maintain and improve the quality of wildlife and fishing recreational opportunities.

- (6) Emphasize factors in reservoir land planning that have a positive influence on quality of life.

Mandates

- (1) National Environmental Policy Act of 1969 (NEPA)
(2) Executive Order 11990: Protection of Wetlands

DATA TYPE: Wetlands Wildlife Capability
MAP SCALE: 1:24,000
DATA SOURCE: TVA Program, Tennessee Wildlife Resources, and Alabama Game
and Fish Commission Data
RESPONSIBLE ORGANIZATION: Office of Natural Resources
Division of Land and Forest Resources
Wildlife Resources Development Program

GENERAL DESCRIPTION:

Wetlands wildlife capability categories were developed based on criteria including quality of habitat, current or historic use by wetland wildlife, and levels of human disturbance.

DATA CATEGORIES:

Map Symbol



Very Good (Any area that meets the first two criteria is considered Very Good regardless of other criteria.)

Displays Habitat Characteristics Attractive to

T&E Species or Populations of Special Concern

Wintering eagles and migrating osprey already frequent select forested shorelines that display such features as remoteness, steep slopes, and perching sites. Areas with such attributes have potential as restoration centers for nesting eagles. River otter are expected in free flowing streams demonstrating such criteria as high water quality, largely forested, located near larger bodies of water, and interspersed with islands or marshlands.

Currently Is or Historically Has Been a Nesting

Area for Wading Birds

In the past, Seven Mile Island has served as a nesting site for numerous wading bird species, and it has potential as a restoration area for breeding herons. A maze of shallow waters, flats, and aquatic vegetation with abundant fish populations are important breeding area requirements.

A High to Moderate Degree of Human Isolation

During Fall and Winter Periods

Many overwintering and migrating populations prefer undisturbed shorelines, spots with little boating activity,

larger expanses of water, and remote shallows or flats during the fall/winter period. Remoteness is also required during the spring/summer for nesting success.

A Spectrum of Feeding Areas To Support a Variety of Wetland Species (Herons, Sandpipers, Aquatic Furbearers, Woodcock, and Snipe)

Sandpipers and snipe utilize mudflats and water-saturated grasslands; woodcock prefer moist bottom land hardwoods and agriculture/pasture sites; herons depend upon vast shallow areas with abundant fish populations; while muskrat respond to permanent water bodies with emergent wetlands, clams and mussels, and stumps/logs that interphase with sloping riverbanks. Areas that encompass all of these attributes can be classified as Very Good.



Good

Possesses Habitat Characteristics Attractive To One or More Wetland Species

The large shallow areas prevailing at the back of large coves or near the mouth of numerous larger streams (Bear Creek) are good potential sites for herons, sandpipers, and other shore birds. The small deltas at the confluence of stream and lake often produce Good areas that are interspersed with islands, mudflats, and aquatic vegetation.

Human Disturbance Not a Factor--or Controllable

Boating during critical periods (breeding/wintering) should not be occurring regularly at a Good site.

Provides Attractive Feeding Opportunities

A good site may not possess all food requirements for a multitude of species; however, the necessities of water, plants, and edge provide a base for a moderate number of at least one to two species.



Suitable

Has Habitat and Food Attributes To Support Only Small Numbers of Individuals

A large proportion of the small coves and inlets has a reduced carrying capacity for sustaining wetland individuals.

Individually they are only adequate spots, but collectively they are an important land area(s) for wetland species.

Human Disturbance Possibly A Limiting Factor

USE IN RESERVOIR PLAN DEVELOPMENT:

Goals Addressed

- (1) Maintain and/or enhance the quality of the natural and cultural resources for existing and future uses.
- (1g) Protect and enhance the important fisheries and wildlife resource habitats in and on TVA waters and lands.
- (2) Provide a diversity of quality recreation opportunities on the reservoir and adjoining TVA land.
- (2e) Maintain and improve the quality of wildlife and fishing recreational opportunities.
- (6) Emphasize factors in reservoir land planning that have a positive influence on quality of life.
- (6b) Emphasize the protection of environmental quality and amenities (air, water, noise, and aesthetics) in the implementation of TVA programs on TVA lands and encourage these considerations in the development of adjoining lands.
- (8) Improve the mechanisms for interagency and public coordination concerning reservoir resource management and development.

Mandates

- (1) National Environmental Policy Act of 1969 (NEPA)
- (2) Executive Order 11990: Protection of Wetlands

SECTION C
COMMUNITY PROFILE REPORTS

SECTION C: COMMUNITY PROFILE REPORTS

C-1: INTRODUCTION

This section contains descriptive information concerning the socioeconomic characteristics of the four counties adjacent to Pickwick Reservoir. Summary data concerning population, employment, income, trade, and services factors are presented by county in Community Profile Reports.

Population analyses and projections are attempts to measure the size, composition, density, and distribution of the population. As such they aid in determining the level of demand for future land and facilities. Similarly the economy of an area, as described by the employment, business, and income patterns of the population, will determine to a great extent the requirements for land. Population and economic analyses provide quantitative estimates of future employment and population, which are useful in defining land management goals and objectives.

C-2: COMMUNITY PROFILE REPORTS

Hardin County, Tennessee

POPULATION:

- o Population increased from 1960 to 1970 by 4.7 percent, and by 14.8 percent from 1970 to 1978, compared to increases of 10.0 and 11.0 percent, respectively, in the State of Tennessee.
- o Fairly strong population growth is projected through 2020.
- o Age distribution of the 1977 population is very similar to the average for the State and region.
- o The racial distribution of the 1977 population is substantially dissimilar to the average for the State. In 1977 only 5.1 percent of the Hardin County population was nonwhite, compared to 15.9 percent for the State of Tennessee.
- o Sex distribution of the 1977 population is very similar to the average for the State and region.
- o The county experienced net outmigration between 1965 and 1970. Only the 45 to 64 years age group experienced net immigration during this period.

EMPLOYMENT:

- o In 1970, 18 percent of the employed residents worked outside the county.
- o McNairy County, Tennessee, was the primary place of employment of out-commuters in 1970.
- o Hardin County experienced a net loss of 523 workers in 1970.
- o Between 1960 and 1970 manufacturing employment increased by 50 percent.
- o Employment in agriculture declined by 55 percent.

INCOME:

- o Between 1972 and 1977 the increase in personal income for the county was considerably higher than for the State's.
- o In 1977 Hardin County farm earnings were 5.8 percent of total earnings and the State's were only 1.6 percent.
- o Between 1972 and 1977 farm earnings declined in both the county and State.
- o Earnings from manufacturing increased by 111 percent from 1972 to 1977.
- o Manufacturing accounted for 36.2 percent of total earnings in 1972. This had increased to 41.1 percent by 1977. In the State, manufacturing accounted for 30.9 percent of 1977 total earnings.

- o Relative to the Nation, the county's per capita income was 57.4 percent in 1972 and 62.2 percent in 1977.

TRADE AND SERVICE:

- o Since 1963 the county's retail sales to income ratio has consistently been above that for the State. This indicates that any outleakage of trade is minimal.
- o The retail sales to income ratio consistently declined from 1963 to 1977.
- o The 1977 distribution of retail sales indicates a higher proportion in gasoline service stations than the State.
- o The county's service receipts to income ratio is considerably lower than the State's.

Tishomingo County, Mississippi

POPULATION:

- o Population increased from 1960 to 1970 by 7.6, percent and by 9.8 percent from 1970 to 1978, compared to increases of 1.8 and 8.4 percent, respectively, in the State of Mississippi.
- o Moderate population growth is projected through 2020.
- o Age distribution of the 1977 population is dissimilar to the average for the State, with 25.5 percent of Tishomingo's population 55 years or older compared to 19.5 percent for the State.
- o The racial distribution of the 1977 population is substantially dissimilar to the average for the State. In 1977 only 4.6 percent of the Tishomingo County population was nonwhite compared to 36.6 percent for the State of Mississippi.
- o Sex distribution of the 1977 population is very similar to the average for the State and region.
- o The county experienced negligible net outmigration between 1965 and 1970.

EMPLOYMENT:

- o In 1970, 26 percent of the employed residents worked outside the county.
- o Alcorn County, Mississippi, Colbert and Franklin Counties, Alabama, were the primary places of employment of outcommuters in 1970.
- o Tishomingo County experienced a net loss of 707 workers in 1970.
- o Between 1960 and 1970 manufacturing employment increased by 40 percent.
- o Employment in agriculture declined by 74 percent between 1960 and 1970.

INCOME:

- o Between 1972 and 1977 the increase in personal income for the county was slightly higher than for the State.
- o Although farm earnings increased slightly between 1972 and 1977, in 1972 the farm earnings accounted for 14.0 percent of total earnings, and only 8.7 percent in 1977.
- o Construction accounted for 11.0 percent of total earnings in 1977, compared to 6.3 percent in the State.
- o Manufacturing accounted for 40.8 percent of total earnings in 1977, compared to 27.4 percent in the State.

- o Relative to the Nation, the county's per capita income was 63.1 percent in 1972 and 66.6 percent in 1977.

TRADE AND SERVICE:

- o Low retail sales to income ratio indicates considerable outleakage of trade, which is not surprising with the close proximity of larger retail centers in Alabama.
- o The retail sales to income ratio declined substantially from 1972 to 1977.
- o The 1977 distribution of retail sales indicates a high proportion in the automotive group.
- o The county's service receipts to income ratio is considerably lower than the State's.

Lauderdale County, Alabama

POPULATION:

- o Population increased from 1960 to 1970 by 10.5 percent and by 13.2 percent from 1970 to 1978, compared to increases of 5.5 and 8.6 percent, respectively, in the State of Alabama.
- o Fairly strong population growth is projected through 2020.
- o Age distribution of the 1977 population is very similar to the average for the State and region.
- o The racial distribution of the 1977 population is substantially dissimilar to the average for the State. In 1977 only 10.5 percent of the Lauderdale County population was nonwhite compared to 26.1 percent for the State of Alabama.
- o Sex distribution of the 1977 population is very similar to the average for the State and region.
- o Although the county experienced negligible net outmigration between 1965 and 1970, several age groups experienced net immigration.

EMPLOYMENT:

- o In 1970, 34 percent of the employed residents worked outside the county.
- o Colbert, Limestone, Lawrence, and Morgan Counties, Alabama, were the primary places of employment of outcommuters in 1970.
- o Lauderdale County experienced a net loss of 6,114 workers in 1970.
- o Between 1960 and 1970 manufacturing employment increased by 31 percent.
- o Between 1960 and 1970 agricultural employment declined by 66 percent.

INCOME:

- o Between 1972 and 1977 the increase in personal income for the county was slightly higher than for the State.
- o Manufacturing accounted for only 17.9 percent of total earnings in 1977. This was a decline of 2.6 percent from 1972.
- o Relative to the Nation, the county's per capita income was 77.3 percent in 1972 and 81.3 percent in 1977.
- o Relative to the State, the county's per capita income was 101.0 percent in 1972 and 101.5 percent in 1977.

TRADE AND SERVICE:

- o The retail sales to income ratio was somewhat lower in the county than the State in 1977.
- o The 1977 distribution of retail sales for Lauderdale County indicates a lower proportion in the building materials group.
- o The county's service receipts to income ratio is somewhat lower than the State's.

Colbert County, Alabama

POPULATION:

- o Population increased from 1960 to 1970 by 6.7 percent and by 0.7 percent from 1970 to 1978, compared to increases of 5.5 and 8.6 percent, respectively, in the State of Alabama.
- o Fairly strong population growth is projected through 2020.
- o Age distribution of the 1977 population is very similar to the average for the State and region.
- o The racial distribution of the 1977 population is substantially dissimilar to the average for the State. In 1977 only 17.0 percent of the Colbert County population was nonwhite, compared to 26.1 percent for the State of Alabama.
- o Sex distribution of the 1977 population is very similar to the average for the State and region.
- o Although the county experienced net outmigration between 1965 and 1970, all age groups 25 years and over experienced net immigration.

EMPLOYMENT:

- o In 1970, 17 percent of the employed residents worked outside the county.
- o Lauderdale, Franklin, Lawrence, and Limestone Counties, Alabama, and Tishomingo County, Mississippi, were the primary places of employment of outcommuters in 1970.
- o Colbert County experienced a net gain of 5,383 workers in 1970.
- o Between 1960 and 1970 manufacturing employment increased by 20 percent.
- o Between 1960 and 1970 agricultural employment declined by 53 percent.

INCOME:

- o Between 1972 and 1977 the increase in personal income for the county was considerably higher than for the State.
- o In 1977 civilian Federal Government enterprises accounted for 14.2 percent of total earnings.
- o Earnings from manufacturing increased by 88 percent from 1972 to 1977.
- o Manufacturing accounted for 48.5 percent of total earnings in 1972. This had increased to 52.0 percent by 1977. In both 1972 and 1977, manufacturing accounted for only 28.1 percent of total earnings in the State.

- o Relative to the Nation, the county's per capita income was 75.3 percent in 1972 and percent 83.6 in 1977.
- o Relative to the State, the county's per capita income was 98.4 percent in 1972 and 104.3 percent in 1977.

TRADE AND SERVICE:

- o The retail sales to income ratio was considerably higher in the county than the State in 1977.
- o The retail sales to income ratio declined from 1972 to 1977.
- o The 1977 distribution of retail sales for Colbert County indicates a higher proportion in the building materials group.
- o The county's service receipts to income ratio is slightly lower than the State's.